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ABSTRACT

This 18-month phase of a continuing demonstration project was designed to develop and test a program of English literacy training for Puerto Rican workers. Participation in the Basic Occupational Language Training (BOLT) program was based on the assumptions that an intensive exposure basis will result in significant improvement in job-related and non-job-related English language capability as measured by designated tests and followup, and improvement in language capability will contribute significantly to persistence, success in and benefit from specific job upgrading programs, as derived from analysis of skill training reports and followup in employment. Other than the positive results that language improvement does, in fact, occur, and that it contributes to job retention and upgrading, other inferences can be made from the data from computer analysis and a range of evaluation data compiled. The assumption that older men resist training is unwarranted as shown by significant increases in language competency in 40- and 50-year-old students. The report gives an account of techniques and actions which resulted in a continuation of the experimentation in a second phase now in progress. (Author)

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41 PUERTO RICAN FORUM, INC.

AGENCY FOR BUSINESS AND CAREER DEVELOPMENT

BASIC OCCUPATIONAL LANGUAGE TRAINING

B.O.L.T.

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FINAL REPORT

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PUERTO RICAN FORUM, INC.

Basic Occupational Language Training
(BOLT)

Contract # 82-34-68-04

Period covered: September 1, 1967 - January 31, 1969

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The BOLT Committee of the Puerto Rican Forum, Inc.

The BOLT Staff

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José A. Toro - Assistant Director, Council on College Level Examination Board; New York City.

Héctor I. Vázquez - Executive Director - Puerto Rican Forum, Inc.

BOLT owes a large debt of gratitude to the United States Department of Labor (OMPER) and its representative, Mr. Albert Cruz; their contribution of funds and technical assistance were basic to the successful operation of the program. This report covers Phase I: the first year of BOLT operations - Sept. 1, 1967 - Aug. 31, 1968, and the contract extensions up to January 31, 1969. Phase II is scheduled for February 1, 1969 - January 31, 1970.

I. Purpose and Objectives

A. The Need

The Basic Occupational Language Training pilot demonstration program was developed to meet the English skill needs at job-entry and in job-upgrading for low-skill, low-wage Puerto Rican workers.

The United States 1960 census, the Puerto Rican Forum's 1964 Study of Poverty Conditions in the New York Puerto Rican Community, the United States Department of Labor's yearly Report on Manpower Requirements, Resources Utilization and Training and other research, proved that Puerto Ricans have the highest rate of unemployment and underemployment of an "identifiable ethnic group" with the exception of the American Indian, and that in the years following the 1960 Census the situation had become increasingly worse. It was apparent that a major factor in the chronic and crippling job situation of the Puerto Rican was the inaccessibility of training because of his inability to speak and understand the English language.

Many skill training programs failed to produce results in the Puerto Rican community because, in addition to ignoring the basic need for a language training prerequisite, they have been taught by individuals who lack knowledge of the psychological and cultural make-up of the trainees.

Blanket efforts in the field of manpower training without the benefit of the necessary experience in dealing with differential educational and work backgrounds, cultural biases towards authority, learning attitudes and the entire pattern of adjustment to life in New York City, are inevitably doomed to be counterproductive.

In the case of Puerto Ricans and other Spanish-speaking workers, a lack of control of the English language makes it much more difficult or impossible for them to assimilate training that provides skills needed in the performance of certain job. The process of accumulating the vocabulary of the trade or profession is, depending on the complexity of the language involved in the performance of the job, an arduous, lengthy, and sometimes impossible task for the Puerto Rican worker to accomplish without guidance.

A factor that compounds the language problems is that a lack of control of basic English is very often interpreted as a mark of inferior intelligence. This attitude makes it much more difficult or impossible for the Puerto Rican worker to assimilate training that provides skills needed in the performance of certain duties. Moreover, employment which might adequately be performed with little or no knowledge of spoken English is often unattainable because of an inability to pass qualifying tests in English. It is important to note that Puerto Ricans are not being effectively reached by manpower training programs directed particularly at the group with which he identifies most, i. e., the low-skill, low-wage worker. In fact, no job upgrading program to date provides on-the-job training in job-oriented English geared to the needs of the Puerto Rican worker, except BOLT.

The need for language training is more basic and far-reaching than would appear at first glance. Language is the most basic and probably the most important skill a worker must master.

Language barriers impede far more than occupational inability. They also inhibit the educational progress of the young, social adjustment of immigrants, and such significant behavioral areas as consumer practices and management of personal finances.

B. Objectives of the BOLT Program

The BOLT experiment and demonstration project was predicated upon the basic premise that the use of an eclectic, intensive exposure training system, with a major sub-system clearly and unmistakably work-related both in content and geographical proximity of training to the work situation, would create an effective learning situation. It would also utilize the motivational strengths arising out of a personal and cultural identification with and knowledge of the personality make-up of the individuals to be trained. Such an approach, it was felt, would have widespread heuristic value in combatting other intractable situations of underemployment and, indeed, unemployment. Successful results would suggest an added dimension of strength of job-related language training for other manpower development projects.

The data amassed would also have applicability for the manpower training of all non-English-speaking groups and would contribute to the educational technology of the adult.

The project objectives, stated as experimental hypotheses, were:

Hypothesis 1

Participation in BOLT training on an intensive exposure basis will result in significant improvement in job-related and non-job-related English language capability as measured by designated tests.

Hypothesis 2

Improvement in language capability will contribute significantly to persistence, success in and benefit from specific job up-grading programs as derived from analysis of skill training session reports. This hypothesis must be considered and tested sequentially since it is dependent upon positive validation of hypothesis #1.

II. Recruitment

A. Projected Procedures

The BOLT program, as it was originally projected, (Sept. 1, 1967 - Aug. 31, 1968) was to prepare workers to move into manpower training programs. In this respect, the liaison with Skill Advancement, Inc. (SAI) an OMPER project sponsored jointly by the Puerto Rican Forum, Inc., the Urban League and Cornell University School of Labor and Industrial Relations, was an integral part of the program. BOLT was to provide the language training as a prerequisite to the skill training of SAI.

B. Recruitment Procedures

In actual practice, however, the anticipated BOLT-SAI relationship did not materialize.

SAI referrals to BOLT were to have involved workers who, in the opinion of SAI, could profit from skill training once their ability to handle the English necessary for the training was developed or improved. These workers would be expected to acquire the English language skill in a BOLT course prior to participation in an upgrading program. Those who demonstrated, as a result of tests administered upon completion of the corresponding BOLT course, an adequate knowledge of general English and job vocabulary would be invited to participate in SAI's upgrading program.

SAI, however, did not live up to its agreement with the Puerto Rican Forum's Basic Occupational Language Training Program. A total of 39 Puerto Ricans out of 339 trainees, or 8.6% of all SAI trainees, were Puerto Ricans. They were all able to handle a skill program in English. Of a total of thirteen courses offered by BOLT only two, amounting to 13 trainees in toto, were the outcome of a referral by SAI. This referral was one contact with the New York City Hospitals, the housekeeping division, which led to the training of 13 men who had already completed an SAI training program. In no instance, therefore, did SAI feed into the BOLT program even one group of workers prior to SAI training.

Consequently, if the BOLT program had relied upon SAI as the sole source for recruitment of trainees, the program would quickly have come to a standstill. (No referrals from SAI were received after February, 1968).

This placed seemingly insurmountable obstacles in the path of the BOLT program: the BOLT staff had to determine possible occupational areas of interested employers and language handicapped workers, recruit such employers, pretest and select all employees, assess the linguistic needs of various job situations and write all course materials. The limited staff of one director, one full-time instructor and one part-time instructor would have found the task impossible without the cooperation of the Puerto Rican Forum's Board of Directors who suggested contacts that made it possible for the BOLT program to operate. The contract extension period, Sept. 1, 1968 - January 31, 1969 allowed for an additional staff member to carry on the sales - the Program Developer.

C. Criteria for Recruitment

Based on the general objectives of the BOLT program, the following prerequisites were established for recruiting purposes. These were determined by two basic considerations: the need for a homogeneous group and the limitation of a maximum number of ten trainees per class.

All trainees had to be Spanish-speaking. This requirement was dictated by the short duration and high intensity of the course of study. Since training was based on the intensive language training approach within a restricted period of hours, varied language backgrounds had to be precluded. Methodology of second language teaching is necessarily more effective and intensive when comparative phonological and morphological considerations are primary and attention can thus be focused on differences.

The second prerequisite was that the trainee be literate in his first language -- Spanish. In accordance with established knowledge about language learning, a person who is learning a second language should first know how to read and write his own. Moreover, modern audio-lingual methodology of learning a second language has demonstrated many parallels with the inital learning of one's native language. The kinds of processes involved can, therefore, be simulated in learning a second language, i. e., repetition, mimicry, grammatical analogy. The learner can build upon a strong knowledge of his own native language.

Practical considerations were predetermined by the limited number of ~~hours~~ that could be devoted to the program. This appeared to be the basic problem: how to use the given number of 50 hours in the most effective way? The course was thus geared in such a way that the job-oriented language training took place in the classroom but was augmented by self-study. The actual contact hours were more than doubled in this way. Self-study was made possible through the use of programmed texts and these, necessarily, postulated literacy in Spanish in order to facilitate the completely individual, step-by-step, corrective learning.

Recruitment of each course was limited to workers performing similar duties. Participants from the same job area made it possible for the BOLT staff to determine the specific occupational vocabulary and structures of the course content, thereby resulting in a more intensive program of instruction. The same factor also insured a greater sense of fellowship within the group of workers and encouraged positive communication among them.

D. Recruitment Problems

Employers expressed concern about the fact that a similar program was not being extended to other groups, eg. their Black employees. It was necessary to point out to them that the needs of the Puerto Rican workers are different and in fact, more pressing, expecially in view of Puerto Rican unemployment figures. They felt that a BOLT course might be considered preferential treatment and would lead to alienation between groups. Employers had to be convinced that BOLT training would actually have a positive effect because it would allow Puerto Ricans to communicate with fellow-employees, staff and supervisory personnel in English. Every effort was made to encourage the non-Spanish-speaking personnel to help in the learning process. Others were included to the extent that they were counted upon for suggestions as to what the language needs were, formulation of vocabulary lists, creation of simulated work experiences, etc.

There was also resistance on the part of employers to the idea that older men could learn. Test results included in the evaluation section of this report demonstrate that such fears proved to be unwarranted.

The lack of personnel made it impossible to mount a research campaign to determine where Spanish-speaking workers are employed in New York City, ie. geographical locale and specific type of industries. This would have greatly facilitated our recruiting efforts. BOLT also faced the competition of other kinds of programs in which employers or employees were compensated for participation in manpower training programs. BOLT had no such funds at its disposal and requested that employers release their workers from job duties for BOLT training.

The fixed hours course (50 hours) was also a handicap, as it proved to be rigid and did not allow for legitimate employer or employee needs that could not meet it. A second phase of the proposal with new facilities and additional staff includes some control groups which will allow for greater flexibility in the scheduling of classes. These courses in approximately Phase I ran for 100 hours, on an experimental basis, for 13 weeks, 4 sessions per week. The data for one (BOLT XVIII) is included in the appendix (Montefiore Evaluation). The other two courses (BOLT XX and XXI) were scheduled to terminate in Phase II.

III. Staffing

Recruitment and training of the BOLT staff was a significant aspect of the administration of the project.

Qualifications for both trainers and consultants were carefully delineated, and candidates were interviewed and screened.

The qualifications for trainers were that they be bilingual individuals with graduate training in the teaching of English as a second language and experience in teaching. In addition, they had to evidence commitment to the goals of the program and dynamic teaching ability. As a matter of more general policy, it was felt that traine s would be Puerto Ricans or people whose life experiences would enable them to empathize with and understand the trainees. Obviously, since the pool of individuals with these qualifications is not large, it was necessary to do intensive recruitment in order to select the best qualified. BOLT staff limitations were severe until the contract extension allowed for more trainers, a Research and Curriculum Associate an Administrative Assistant.

Consultants were university faculty members with specialties in the areas of language training and research design skills. The consultants who were involved in the BOLT program are highly regarded members of their respective academic communicaties who have published and lectured extensively in their special fields. They also evidenced a commitment to the goals of the project and innovative approach to the task of upgrading through language skill training. The BOLT Advisory Committee performed an invaluable service to the BOLT program by suggesting avenues and procedures for program implementation that were a result of pooled expertise in areas of linguistics, education, research, psychology and manpower training.

IV. Course Scheduling

A. Release Time

The arrangements with employers for released time for a BOLT course posed significant problems. Although the initial period of release time requested was 50 hours (two hours per class, per day, for 5 weeks), the real figure generally granted was 25 hours. The course remained 50 hours long, but, of the great, majority of cases, one hour of the worker's own time (lunch or prior to work day or beyond working day) complemented every hour granted by the employer. The requirement that the course meet every day also caused employers to balk; during the contract extension period this was reduced to 4 days per week.

There were two programs (BOLT I and XVI) in which the workers contributed both hours for training and were not paid for this time. Program number I had to be cancelled and number XVI had an attrition of 10-7-5 (only 5 workers graduated), proving the difficulty prognosticated in attempting free time training. Four programs had total time contributed by the employer. These were offered to trainees engaged in all-day training programs and BOLT was included as part of the overall training offered. These were conducted in conjunction with the South Bronx Concentrated Employment Program (BOLT IV) and the Welfare Department's PREP project (BOLT VII). The rest were scheduled on a one-to-one formula in which one hour was contributed by the employer and the other by the worker. The worker's hour usually coincided with lunch or was scheduled at the end of the work day.

The two hour block per training session proved to be adequate; it was not so short as to be unproductive or so long as to overextend the workers. Exposure to language training, moreover, is most beneficial when on a day to day basis as opposed to intermittent or widely spaced sessions of greater duration. Actual classes were extended to 6 1/2 weeks (meeting 4 days a week,) during the contract extension period.

A training cycle generally graduated on a Friday at the end of a five week period and a new one began on Monday. The new course followed immediately on the heels of the prior one, thereby allowing only a week-end between the completion of one course and the start of a new one. Lengthy pre-testing procedures and the adaptation of the BOLT core curriculum to new training courses had to be carried on while other courses were being taught. This proved to be an undue strain on staff, particularly in view of the fact that every course met every day. The contract modification permitted greater flexibility, generally extending the course from initial contact through first evaluation to 12 1/2 weeks.

B. Coordinate Courses

The number (10) of trainees per course had a serious impact on the determination as to the type of employer contacted for recruiting. It was soon evident that small employers would claim that they could not afford to release ten employees without bringing production to a standstill. It was not practicable on the other hand, for BOLT to hand-tailor a curriculum and allot a teacher and course time for less than 9 - 10 workers. A very large employer with small individual locales can be encouraged to establish courses that recruit trainees with the same occupation from several sites. This was the case with the New York City Housing Authority: 44 housing projects contributed 79 caretakers for 8 different courses who met in the Mobile Language Classroom at 8 locations, each one central to for the trainees involved. Schedules of this nature demand careful planning and coordination, but are well worth the effort.

C. Mobile Language Classroom

One large second hand school bus, especially equipped as a mobile language laboratory by White Electronics Corporation, was used as a classroom-on-wheels. The bus had a sitting capacity of 12 (10 arm-chair-type desks, equipped with headsets for the trainees, a console-desk for the teacher with two tape desks, other visual aids, and a coded panel which permitted the teacher to communicate with an individual member of the class or simultaneously with the entire group, and one visitor's chair). The ceiling of the bus was acoustically treated. Students were able to record their own voices, and listen to the tape, teacher or record. The bus had to have heat and air-conditioning, which proved seriously inadequate, added to it as the training suffered during the winter and summer months because of the workers' discomfort.

Use of the Mobile Language Classroom was an invaluable asset; it eliminated carfare expenses for the workers and travel time. Parking the language laboratory - classroom in the very vicinity of the job also led to the involvement of the employer in the actual training, a factor which proved an added stimulus to its success. Lack of training facilities is a serious problem for most employers who proved anxious to have the services of the Mobile Language Classroom.

Inadequate city-wide sales promotion due to staff limitations hampered effective scheduling of courses within the same geographical area, a factor that would have reduced BUS travel time, gas expenses, and ultimately, breakdowns. The BOLT bus was old school bus converted to meet the specific needs of the program by White Electronics. Future bus facilities, however, should be originally designed to meet BOLT's special needs,,and not adapted. These plans are an integral part of BOLT, Phase II. Adaptations inevitably led to breakdowns which in turn, abstracted the progress of the training. Bus breakdowns, time off for repairs and allowances for transportation within congested city traffic interfered with the scheduling of training courses and necessitated the hiring of a relief driver for the bus.

V. Pre-testing

A. The tests

During the initial year of BOLT operation, 177 subjects were pre-tested, interviewed and evaluated as part of the research activity of the project in order to determine 16 groups or 135 trainees. During all of phase I, 343 workers were pretested, 198 selected, 24 dropped out, 174 graduated in the 21 courses. A complete analysis of the evaluation is in Section VIII, and a complete description of each of the exams below is in the accompanying materials.

The principal evaluation of the project was through the analysis of possible gains in language ability as measured in four distinct ways:

1. AURAL COMPREHENSION - The capacity to hear and identify proper English language use as measured by the standardized Michigan English Aural Comprehension test, 45 minutes, group administered, by C. Fries and R. Lado.

2. STRUCTURE- The capacity to use the appropriate structural form to conform to the grammatical rules of spoken English as measured by the standardized Michigan English Structure test, 60 minutes, group administered, by C. Fries and R. Lado.

3. JOB RELATED VOCABULARY - BOLT administered specially devised vocabulary tests with a sample of 10 words relating to the specific job situation in increasing difficulty. Since this test is presented visually and (if needed) aurally, the score earned by the trainee is not merely a yes or no rating, but an indication of working mastery of the specific vocabulary - 10 minutes, individually administered - not during pre-testing, but in the first session of the course.

4. INTERVIEW RATING - An individual interview was rated for general language use and fluency including factors of word choice, mostly of forms, pronunciation, enunciation, use of

appropriate tenses, etc. The standardized interviews were all tape recorded since their content involved responses to stimuli related to motivational variables elicited by projective pictures, and rated separately. The tape recordings were rated for language use in a conversational situation following Foreign Service Institute criteria with a rating scale from 0 - 5: 15 minutes, individually administered.

As part of the research activity, information was collected as well on variables that were hypothesized as potentially relevant to training success. These variables were demographic, descriptive, cognitive, motivational and affective. They include:

(1) Birthplace - for most trainees, the birthplace also implied the first or primary language.

(2) Length of residence in mainland United States

(3) Age

(4) Non verbal intelligence - The Raven Progressive Matrices (Form J) 1931 was administered. This test, which presents non-verbal or picture stimuli and calls for either a verbal or non-verbal response, has been used extensively throughout the world, as well as in Puerto Rico. While there is considerable overlap between scores on this test and scores on verbal tests, the comparative ranking of our trainees does provide some valuable information on new cognitive capability, as distinct from that expressed in verbal terms. Non-verbal intelligence then is a control factor. 30 minutes group administered.

(5) Functional Socio - Economic Status

For some of the subjects, the Environmental Participation Index (EPI) was filled out. This form represents a checklist of activities and objects that are involved in a functional utilization of cultural resources. It has been found to add a significant dimension of functionality to the delineation of socio-economic status. Although it is still experimental, the positive correlation between EPI scores and general intelligence scores also imply measurement of functional social capacity. (15 min., group administered).

(6) Motivational factors - All of the factors are measured through ratings given to tape recorded responses to

specially prepared drawings in the style of the Thematic Apperception Test (TAT) of Dr. Murray of Harvard University.

The first picture, for example, shows an adolescent standing near a table with one hand on a thick book, which resembles a dictionary or text book. The subject is asked to tell a story describing what is going on, what led up to it, how the person feels and what the outcome will be. Ratings of the responses have been made by the evaluation consultant and/or his associates.

In case of any doubt or question about a particular response, the rating given is the average of two or more rater's judgements. The four pre-training motivational variables included were:

(a) Attitudes toward education -(historic) with particular reference to experiences of adolescent years.

(b) Attitudes toward authority - submissive, rebellious, cooperative, etc. Is authority seen as helpful or threatening?

(c) Orientation toward work - with particular reference to feelings about supervision, and outcomes of work.

(d) Achievement Motive - adult oral leadership activity, is it seen as good, effective, and helpful or not?

B. Objectives and Administration of Pre Tests:

The prime objective of the pre-tests was to arrive at a homogeneous group of ten trainees. Homogeneity was determined by three basic factors evaluated through the testing: language background, literacy, and occupational background. Uniformity in language and occupation were essential to the intensive, job-related language training of the BOLT program. Spanish literacy was a prerequisite for the materials utilized. The first and third factors (language and occupational background) were determined by the employer and the third (literacy) by the BOLT staff.

Every employer interested in a BOLT program received a set of biographical data sheets in Spanish (Informe Biográfico), a copy of which is attached. The employer was instructed to distribute the sheets to all interested workers, after initially explaining the BOLT program.

Since the non-Spanish-speaking employer has no way of knowing whether the individual was literate in Spanish, this biographical report actually constitutes a literacy pretest in Spanish. The forms were distributed in the presence of a supervisor and the applicants were asked to fill them out individually. Approximately five minutes were alloted for this purpose. Under no circumstances was the trainee permitted to take the form home. Excuses such as "I left my eye glasses at home" could be construed (except where established as fact), as an attempt to have the form filled out by someone else, in order to avoid admission of illiteracy.

All of the forms were returned to BOLT by the supervisor. In the case of individuals who failed to fill out the form, a list of literacy training programs in Spanish, (free evening courses) was mailed to them by the BOLT staff. Only an insignificant number of all workers pre-tested (approximately 10 out of 343) proved to be illiterate in Spanish. The others were invited to an explanatory session on BOLT which was, in fact, the pre-testing session.

The optimum number of workers to pre-test in order to arrive at a group of ten with similar language needs ranges from 13 - 20. In reality, the average number tested ranged from between ten to fourteen persons per group.

The pre-testing session began with an introduction to the objectives of the BOLT program in Spanish. It was perhaps the most significant day in the entire training cycle. The tone was set for the course; the goals, curriculum and methodology were made clear to the prospective trainee.

It was essential to create a relaxed atmosphere, free of tension and fear, as a forecast of the rewarding and relevant learning experience to come. The candidates were not told that they were going to be tested. Rather, they were addressed in Spanish in a friendly and personal way. First the project was described as a joint endeavor on the part of the employer, who was interested in helping his workers progress, and the Puerto Rican Forum, Inc. a non-profit, self-help Puerto Rican agency, devoted to solving specific problems of the community through self-help projects. Brochures describing the FORUM and its programs were distributed and staff members also handed out their personal cards. This personal approach is an invaluable fact of the high motivation generated in a BOLT course.

Events scheduled for the day were explained in detail. The fact was stressed, that only one bus with ten seats was available, as was the experimental nature of the program. They understood that not everyone present would be able to participate in BOLT at that time because of these limitations but that we expected our initial projects would succeed because of their cooperation and that would lead to expansion of the program and facilities.

It was explained that the initial interview and pencil and paper exercises would enable us to arrive at a group of ten who were at about the same level of English ability. It was emphasized that these were not tests to determine how "smart" or "dull" the workers were, but to give the trainers and linguist some idea as to the extent of their exposure to English in its spoken and written forms in order to proceed to form homogeneous groups. It would, moreover, it was explained, be a disservice to the group if the levels of exposure to English among trainees were terrible disparate. It was also important for the instructors to determine where to begin in the course in terms of grammatical structures. In order to decide this, it was necessary to know the English entry level of each worker.

The candidates were also told that they would be free to consult with BOLT representatives during the day on any questions that they might have concerning the program. Most questions asked centered on the problem of work time. The workers wanted to be reassured that the supervisors would really be informed about the program and that the participants would in fact be released from the job. In many instances they asked if they would have time to shower and change before class.

Emphasis was also placed on the fact that no expenses would be incurred: texts and materials were free. Only personal writing materials would be purchased on an individual basis.

The main personal preoccupation expressed was the fear of not knowing enough to qualify for the class. Candidates appeared to have the false impression that they had to know a great deal of English in order to participate in BOLT. Some workers were taking evening courses (high school classes or technical training); others had family responsibilities or second jobs and were worried about not having sufficient time to devote to their English studies. These fears were allayed by a description of the programed workbook which allows the individual to set his own pace. Generally, the response of the candidates to the pre-testing day proceedings was enthusiastic: they expressed great interest in the program; all wanted to participate and were eager for the course to begin immediately. The lapse of time between the pre-testing and the start of classes worried them despite the fact that it is usually only several days to one week for those areas in which a course had already been offered, and a maximum of two weeks for a completely new occupational language area.

An effort was made to disassociate the somewhat long, and demanding process of pre-testing from the actual course. Candidates were informed that the exercises would appear to be difficult and that they would not be able, nor were they expected, to answer all questions. The course, however, would be less rigid, totally job-oriented, and would allow for more two-way communication between trainer and trainee. Throughout, the attitude was friendly and the atmosphere relaxed. The candidates were asked to help ensure the success of the project as an example to the entire New York City community, especially as Puerto Ricans. They were informed that the tests would be repeated at the end of training so that progress could be determined. This was also true of the recorded interviews which they were told not to fear because they would enable the staff to remember their voices. Many assurances were given so that the pretesting situation was as tension free as possible.

Areas tested, as noted above, were: (1) the ability to understand spoken English, (2) the ability to understand and read written English, and (3) the ability to speak (oral interview). The non-verbal intelligence test (J. C. Raven) was used because of the apparent correlation between the ability to match the tests designs and the ability to make important linguistic analogies in the learning of a second language. Before each test was administered, the nature of the test and the test booklet were explained. Sample questions were reviewed as a group in order to acquaint workers with the test. The lack of pencil and paper test sophistication of all groups was consistently very high, necessitating many clear repetitions, in Spanish of the testing procedures. Ideally, no testing should be carried on during the initial sessions with the workers, but the limitations of space and time demand some method of determining fairly homogeneous groups. Nevertheless, BOLT courses still tended to include workers with a 20-30 grade point range (scale of 100) in the same group.

VI. Curriculum

A. Preparation of Curriculum

Preparation of a job-related, tailor-made BOLT curriculum starts with a visit to the job-situation. The purpose of this visit is to survey the job-situation in terms of special on-the-job vocabulary needs and to secure any printed materials, manuals and other related literature from the employer and supervisory personnel. The new BOLT program, Phase II,makes provisions for more extensive pre-course linguistic surveys. A day should be spent at the place of employment prior to the preparation of the curriculum with a tape recorder so that course planning can start with an actual record of the linguistic needs of the work situation which is as complete and detailed as possible. Job vocabulary lists are devised as a result of the linguistic analysis, and distributed to students.

The most significant aspect of the BOLT curriculum is its concentration on the specific vocabulary and grammatical structures basic to adequate performance of a particular job. A core curriculum of 22 lessons was the basis of every training program, after the incorporation in it of the job-English pertinent to the tasks performed by each training group. Every occupational job had its own specially created text or Curriculum Guide.

B. Curriculum Areas

The original BOLT proposal stated that language training courses would concentrate on three occupational areas: 1) plastics 2) housekeeping and 3) one new area within the SAI program. These areas were determined by reviewing

SAI's previous skill training programs and expected areas of concentration. Consequently, BOLT recruiting had to accept whatever occupations were available when the BOLT-SAI relationship did not materialize. The occupational areas actually served within the BOLT training program,(Phase I) were seven: 1) Hospital Housekeepers 2) Housing Authority Caretakers 3) Community Action Workers 4) Office Skills and 5) Hospital Dietary Service Workers. 6) Bank Check processing Operators 7) Consumer Education (unemployed mothers), representing formidable research and gathering of materials for the creation of suitable curricula. Curriculum Guides are available in each of these areas.

C. Methodology

The techniques under experimentation were adapted to meet the workers' and industries' needs for intensive and practical English training, linked to the specific job performed. Well-recognized principles that applied linguistics has brought to the teaching of English as a second language and intensive skill training experiences are basic to the BOLT methodology which proceeded on the following assumptions:

(1) The ability to understand (aurally) and produce (orally) the basic English structures and vocabulary of the job is essential for communication on the job, comprehension of work tasks and participation in upgrading programs.

(2) Each individual member of a group of Puerto Rican workers with varying levels of education and exposure to English can best proceed at his own pace in the accumulation of general English grammar, and in the ability to read and write English. This was done through programmed instruction, as an auxiliary to the predominantly oral and specifically job-oriented training sessions.

1. Audio-lingual Methodology:

The major emphasis in BOLT is on the ability to comprehend (audio) and speak (lingual) English, in particular the "language of the job", with secondary emphasis on the ability to read and write standard English.

The basic occupational English structures and vocabulary of a particular job should become integral and habitual linguistic patterns of the individual worker's language, aided by audio-visual equipment such as a language laboratory, visuals, equipment and materials relevant to the job situation that permit constant repetition and comparison.

Exposure to and use of the language of the job in realistic job situations maintains high motivation and reinforces the patterns taught.

2. Programmed Instruction:

Programmed learning is based on learning principles deriving from recent developments in psychology and education demonstrating that students can master a subject with a negligible number of errors by proceeding through a course by a large number of small easy-to-take steps.

The worker learns general standard English on his own with programmed materials for home assignments that emphasize behavioral situations and the related lexical material of the language, integrated with the grammatical patterns of the English language most relevant in each job that are stressed in class.

The worker proceeds at his own pace and largely on his own time through a carefully graded, approximately 50 hours long, and experimentally tested sequence of material as he gains competence in English and receives immediate confirmation of the correctness of his responses by checking the answers.

, The BOLT trainer instructs and guides the workers in the usage of the programmed materials, checks individual progress every day and elaborates upon and reinforces them in his instruction of the basic occupational language of the job.

Explicit procedures in the BOLT methodology, including a breakdown of the two hour training period, are included in the materials accompanying this report.

VII. Post-Testing and Graduation

A. Post Testing

At the end of every training cycle, during the last two training sessions, careful post testing is carried out in order to ascertain the learning experienced as a result of BOLT training. Forms A of the Lado-Fries Aural Comprehension and Structure exams were part of the pre tests; Forms B of both tests are used in post testing.

The job-related vocabulary post test is a list of 10 words devised by the BOLT staff and similar to the pre-course job vocabulary test.

The post-training interview again utilizes five introductory questions which parallel those of the pre-training interview, supplemented by one adapted Thematic Apperception Test picture. (Descriptions in accompanying materials)

> This was a fifth motivational variable that was included as criterion data, that is, as an indirect evaluation of the affective outcomes of the BOLT training itself. (The fifth protocol also provided an oral interview post-training score for language use measurement). The related variable measured is: Attitude toward adult training and instruction - the picture shows one adult in a business suit, pointing out something in a book to another adult who is in work clothes. This obviously can relate to a training type situation.

The Lado-Fries tests are intended for college-level students from different regions in Latin America. They are, therefore, not job-related in vocabulary and therefore, use general English structures, not specifically those included in the BOLT curriculum. The lack of correspondence of these tests to actual BOLT training underscores the need to work on and devise specially relevant tests. What has been referred to as "criterion reference testing", by the Defense language Institute for example, creates tests based on what the trainee must learn, i.e., a small, limited body of material, and not on what he does learn out of a larger body of general material. In BOLT's case the test would focus on whether the trainee could perform each and every one of the actual language behaviors necessary for adequate job performance, an obviously difficult task. Although areas other than vocabulary, i. e., structures, would be difficult to determine, such testing might prove invaluable in arriving at a true evaluation of actual achievement.

B. Graduation

Every trainee who finishes a Basic Occupational Language Training course and fulfills his responsibilities in class and work assigned outside of the classroom, is awarded a BOLT diploma at a graduation ceremony at the end of the course. Post testing grades are not determining factors in the granting of diplomas. The diploma is inscribed with the following text:

> "This Certifies That__________________ has satisfactorily completed a Basic Occupational Language Training course, and has earned the conferral of this diploma for perseverance and accomplishment in the study of English as a second language".

For many of the trainees it represents the first diploma they have ever received for any formal instruction. As such, it has great symbolic value for the recipients as concrete proof of actual achievement, and is, therefore, cherished. Many of the trainees frame the diploma and exhibit it with justified pride.

Graduation day for most of the trainees takes on extraordinary significance. Graduates generally appear in suits not work uniforms for the occasion. The importance of the event is underscored by the remarks of an appreciative graduate who in halting and newly-acquired vocabulary expresses his thanks to the employer, agency and Department of Labor for allowing him to take this first step in self-improvement and occupational upgrading.

The ceremonies also include remarks by a top-level management representative - usually the president, manager or director of the sponsoring firm. A representative or member of the Puerto Rican Forum's Board of Directors also addresses the group in English and Spanish.

It is hoped that a significant contribution to the graduation ceremonies can be made in the future by the preence of a representative from Department of Labor.

Invitations to the graduation are extended by the Puerto Rican Forum and are mailed to members of the U.S. Department of Labor, the Puerto Rican Forum's Board of Directors, management executives, supervisors designated by employers and the families of the graduates.

Appreciation is expressed by the students in the form of a gift to the instructor, a gesture which is in no way encouraged, but which occurred in every training group due to the initiative of the workers themselves.

VIII Evaluation

A. Methodology

The testing methodology is outlined above. Most of the variables were obtained from scores on standardized tests using the directions for scoring as written in the manuals of each test. There were two areas of variables that had to be rated, both deriving from the tape recorded structured interviews. These were the interview ratings for facility in language use and the ratings of motivational variables deriving from responses to the devised T.A.T. stimulus pictures.

In both cases, raters were trained and instructed in the use of a detailed rating scale. The language rating scale corresponds to the U. S. State Department Foreign Service Language rating scale, a 0-five point scale on which a score of 1= survival use and a score of 5 means native professional facility in the language.

For the motivational variables, the five points scale was balanced between positive and negative with minus 2 representing the most negative and plus 2 the most positive. Rating was carried out by at least two raters for each subject, and the final rating represented the average of two ratings in the case of discrepant ratings. In fact, there were less than 10 instances of discrepancies in these independent ratings. Raters were college students, of Puerto Rican background, who were bilingual.

As a final check, synopses of responses were translated into English where necessary and written out, and a research psychologist reviewed all the ratings using clinical skills to assess the strength of positive or negative motivation implicit in the response.

All scores have been entered on a master data sheet along with each subject's age and length of residence in mainland United States.

Computation of group means and statistical analysis were carried out by computer-assisted analysis.

B. Scope of Evaluation

From January 1, 1968 until February 1, 1969 twenty one separate training programs were conducted by The Puerto Rican Forum in Basic Occupational Language Training for employees of varied business and public service enterprises. Each program was specifically designed to meet the needs of the Occupational group involved. As is seen from the accompanying table, approximately 8,650 hours of individual training was given to 174 workers who were graduated. However, three hundred and forty three individuals were tested, but either did not participate in the program, or began and did not persist or are still scheduled to participate at a later date. Most courses ran for 50 hours, with a typical course meeting four or five days a week for two hours a day over a 5 or 6 1/2 week period. The results of these programs were evaluated as described in the following pages.

TABLE I

Class	Hours	Number of Students	Total Hours
I	50	6	Cancelled
II	50	8	400
III	50	6	300
IV	50	11	550
V	50	9	450
VI	50	8	400
VII	50	10	500
VIII	50	10	500
IX	50	10	500
X	50	10	500
XI	50	10	500
XII	50	10	500
XIII	50	8	400
XIV	50	9	450
XV	50	8	400
XVI	50	5	250
XVII	50	5	250
XVIII	100	10	1,000
XIX	50	8	400
XX	100	7	700
XXI	100	12	1,200
XXII	In progress		
XXIII	" "		
		174 graduates	8,650 hours

C. Trainees

The trainees, thus far, have been in groups ranging from six to ten in size. One hundred thirty eight of the 174 graduates in groups I - XXI were male; 36 were female, primarily from groups training for clerical positions. The age of trainees ranged from sixteen to sixty three with a mean age of 36.09. This implies, quite correctly, that most groups consisted of mature men in their middle years. Three hundred and forty three workers were pretested, 198 selected, 174 graduated, 24 dropped out. (See appendix), 144 were from Puerto Rico, the others were from Cuba, Dominican Republic, Columbia, Ecuador and Honduras. (See ethnic background list).

D. Test Results - Change in Language Scores, based on BOLT I - XIII

The first hypothesis of the project was that language use improvement would result, based on standardized tests and rated interviews. Test results are reported in Table I. Since the number of subjects approximated 100 for each variable, (except oral interview), total scores are reported; averages can be derived by the movement of one decimal place. However, for net change, the crucial variable, both total and average changes are reported.

For the oral interview, the pre-training average was .9 on a 0-5 scale. This means that the average trainee had slightly less than survival command of the English language. Review of individual scores tend to confirm this generality, although there were six trainees so close to functional illiteracy in English that they received a "0" rating. These cases do not, however, skew the distribution to any great extent for the standard deviation is approximately .08.

The post training mean is approximately 1.6, which means that the survival level has been exceeded, and the individual is moving toward knowledge of and command of tenses. The "t" of 4.37 is significant at the .001 level and indicates that the results did not occur by chance.

On the standardized test of aural comprehension, the mean improvement was 7.84 points between pre and post testing. This is the most significant gain of all tested variables.

Scores on the standardized test of language structure also show highly significant gain with a mean gain of 7.28, which is also significant at the .001 level.

Job vocabulary was tested by presenting matched lists of ten job related vocabulary words. Responses were scored on a three point scale based on visual recognition, aural recognition, partial or no recognition of the stimulus word. Post-test scores averaged around 1.2 for the trainees, indicating partial or incomplete recognition of job related words. Post-test scores averaged around 1.9, indicating aural recognition of the word, but still little indication of visual recognition. For this variable, the meaning of the scoring obviates the necessity for evaluation based primarily on statistics. The statistical analysis indicates, of course, a .66 change significant at the .001 level. The change is however, from partial or incomplete recognition to aural recognition of job related vocabulary not specifically tutored during the training sessions.

The overall result then is a confirmation of the initial hypothesis of the study; trainees do show significant gains when pre-training means are contrasted with post training means.

E. First Comp. Analysis

Collection and analysis of data for the BOLT project has been proceeding sequentially. The process of data collection, in itself, has been more complex than would be true in an experimental laboratory situation. The only feasible way to collect data in a learning program conducted at various sites is through a series of carefully planned and scheduled group data collection procedures. The completeness of the data depends on the attendance of all individuals, a requirement which is not always met.

The data were collected, coded and recorded on master data sheets. The data were then punched on cards and the initial analysis was started.

The first computer analysis based on data from 131 trainees in the first 14 programs was designed to calculate means and standard deviation for each of the variables. Then correlation coefficients were calculated for each of the variables with all of the others so that a correlation matrix resulted. The fact that the data was not complete for all subjects results in variable N's for each correlation coefficient, and the program used was written to accomodate this fact. It was necessary, also, to calculate separate significancies for each correlation coefficient, and this was done by converting to Z scores and then converting the Z's to standarized Z's.

List of Variables in Matrix

1 Age

2 Residence - Length of Residence in New York City

3 Pre I - Pre-training - Interview Rating

4 A " " - Aural Test

5 S " " - Structure Test

6 JV " " - Job Vocabulary

7 I -Post-Training - Interview Rating

8 A " " - Aural Test

9 S " " - Structure Test

10 JV " " - Job Vocabulary Test

11 RAVEN Matrices - non verbal intelligence test

12 EPI P - Possessions in home

13 EPI A - Activities & participation during youth

14 EPI T -Environmental Participation Index - Total Scores

15 TAT I - Development education

16 TAT 2 - Work orientation

17 TAT 3 - Attitude to authority

18 TAT 4 - Adult assertiveness

19 ORIGIN - New York born, Puerto Rican born, other

20 Years of School - (whether on mainland or in Puerto Rico)

21 Criterion - Measures and ratings

1. CORRELATIONS OF LANGUAGE CHANGE SCORES WITH DEMOGRAPHIC AND MOTIVATIONAL VARIABLES

What demographic and motivational variables are most closely related to training success as measured by significant (.01 level) correlations with language change scores? Results of the correlational analyses are inconclusive, since there are but few positive correlations, as well as some negative correlations. Length of residence on the mainland correlates positively (.38) with change in interview rating, but negatively with the other three tests. (aural -.18, structure .-39, job vocabulary -.52).

Change in the aural test scores was positively correlated with the number of years of prior schooling completed by trainees (.18). A positive correlation (.17) also appears between the work orientation motivational variable and improved scores on the structure test. A possible interpretation of this correlation is that those better oriented to work perform structured training tasks more efficiently.

The correlation analysis suggests various possibilities for further analysis by analysis of variance, (biserial) correlation, and possibly cluster analysis.

2. INTERCORRELATIONS OF LANGUAGE TESTS

An examination of the correlations between the four language tests reveals the following as outlined in two sub-matrices:

Table I - Sub-matrix of Language Test Pre-Scores

		3	4	5	6
Interview	3	x	.16	.27**	.35**
Structure	4		x	.62**	.37**
Aural	5			x	.41**
Job Voc.	6				x

**significant at the.01 level

Of the pre-tests, all are intercorrelated significantly with the exception of the interview and structure tests. The Aural and Structure tests appear to be so highly correlated as to create a presumption of overlap. The other tests are positively correlated but the overlap appears to be minimal. For the Aural and Structure tests, the extent of shared variance is at about the .38 level. (The square of the correlation coefficient).

Table 2 - Sub-matrix of Language Test Post-Scores

		7	8	9	10
Interview	7	x	.36**	.33**	.46**
Aural	8		x	.76**	.57**
Structure	9			x	.51**
Job Voc.	10				x

**significant at the .01 level

As might be expected, the post training tests show greater homogeneity in higher positive correlations. Once again, the highest correlation, implying very extensive overlap or shared variance is found between the Aural and Structure tests where the shared variance appears to approximate the .58 level (the square of the correlation coefficient). The correlation between interview rating and aural test scores which was positive but nonsignificant for the pre-training scores, now is found to be significant at the .01 level for the comparable post training scores.

Of greater interest are the correlations between pre-training and post-training test scores. The size of these correlations depends not on gain but on variability of gain. The results are as follows:

Table 3 - Pre-Post Test Scores Correlation

Variables	#Subjs.	Mean	St.Dev.	Corr. Coef.	Stand Z
3	91	12.3	5.01	.39	3.88**
7	91	15.4	5.81		
4	117	46.9	17.2	.69	8.93***
8	117	55.9	17.3		
5	112	41.9	16.4		
9	112	48.5	15.9	.85	12.97**
6	99	16.3	10.7		
10	99	20.7	5.8	.37	3.8**

** 0.1 level *** .001 level

What emerges here is interesting. The standardized tests correlate at such a high level as to imply rather limited variability of gain. The interview rating and job vocabulary scores correlate at a much lower level, and there is a reasonable presumption of variability of gain.

F. SECOND COMPUTER ANALYSIS CHANGE SCORES ON LANGUAGE TESTS

(Based on 21 Groups)

The principal finding is that there is significant gain in all the language scores between the pre-training testing and the post training. The "t" tests of significance of difference of means are significant for all variables indicating that other than chance improvements have occurred.

Concentrating on the meaning of the significant improvement in the interview rating, we note that most of our students, whose use of English in conversation was rated as less than "survival level" prior to training, reached and surpassed that minimal level after training.

Additional analyses were performed to gain understanding of the interrelationships of the variables studied. It was found that the language tests were fairly distinctive, although the standardized tests of Aural comprehension and Structure overlapped. They measured the same area to a large extent, both before and after training.

These two tests also had less variability of gain than did the Interview and Job Vocabulary tests. If we make a distinction between formal language use and informal language use, the Aural and Structure tests relate to formal use. The gross change was greater in the informal language tests, but this is due in part, to the lesser variability of these scores.

The mean changes and standard deviations are as follows:

VARIABLE	RANGE OF SCORES	MEAN CHANGE	STANDARD DEVIATION	FIRST ANALYSIS MEAN CHANGE SCORES
Interview	0-10	4.69*	10.5	3.3**
Aural	30-80	9.6	15.5	7.84
Structure	30-80	6.1	11.1	7.28
Job Vocabulary	0-10	3.7*	12.1	2.2

* For computational purposes, the decimal point has been moved one place.

** Scores are reported in comparable form.

In summary, it is evident that significant change was effected in both the informal and formal language use of the trainees, consonant with the findings of the first computer analysis: The change as measured by this analysis is greater for all tests except the structure tests where the first analysis reports a change of 7.28 points and the second a change of 6.1. The difference is not significant.

1. INTERCORRELATIONS OF CHANGE SCORES

The change scores are based on the post-training language scores minus the pre-training scores on the same tests. They intercorrelate as follows:

	I	S	A	JV
Interview	X	.00	-.46**	-.50**
Structure		X	.24**	.11
Aural			X	.42
Job Vocabulary				X

** significant at the .01 level

The highest positive correlation is between the Aural test and the job vocabulary test. Change on these tests appears to proceed in the same direction. The structure and Aural tests, similar in origin and administration, are also positively correlated in change scores.

The significant negative correlations between the interview change scores and the aural and job vocabulary change scores are not only the largest correlations but also raise additional questions with regard to the interview ratings. These ratings correlate in positive fashion with two of the three other tests given during the pre-training testing, and with all three of the other language scores in the post training testing. However, the changes in these scores do not correlate in a positive fashion, but in an inverse relationship. One possible explanation derives from the "halo effect" in interviews ratings.

The positive correlation of Structure and Aural test change scores is consonant with the degree of overlap found in the previous analysis between these tests.

2. INTERCORRELATIONS OF MOTIVATIONAL AND DEMOGRAPHIC VARIABLES

The motivational variables derive from the use of thematic apperception test type presentation of four pictures, (see Description of Language Tests in Appendix) about which the respondents are instructed to tell stories. The first picture, showing a boy at a table touching a large, massive book, relates to attitude toward educational development. The second, a picture of an older, formally attired man talking to a younger, shirt-sleved man near a machine, relates to attitudes to work and supervision. The next depicts a police like figure with his hand on the shoulder of a moustached man, and relates to attitudes toward authority. The fourth, showing an impressive man standing at a podium addressing a group, relates to attitudes toward self-assertiveness.

The intercorrelations of these four variables are as follows:

ATTITUDE	1	2	3	4
1. Educational Development	x	.10	.35**	.37**
2. Work & Supervision		x	.18	.29**
3. Authority			x	.19
4. Self-assertiveness				x

**significant at the .01 level

The overlap is slight : the four variables are positively interrelated at a low level. The highest correlation between educational development and self-assertiveness commends itself readily in logical terms.

The Environmental Participation Index (appendix) is designed as a measure of functional socio-economic developmental status by asking the respondent what things he had in his home when a youth, and what activities he engaged in then. These two parts of the EPI correlate at the high level of .48. The total scores on the EPI correlate in positive, but nonsignificant fashion with the TAT motivational variables. The correlations of the EPI total scores and the motivational variables are:

	EPI Total Correlation	Standarized
Educational Development	.40	2.0008**
Work and Supervision	.27	1.318
Authority	.05	0.242
Self-assertiveness	.34	1.666

**significant at the .01 level

Although the EPI has some overlap between parts, we note that there is a negative correlation of -.34 between age and the activities part of the EPI. The older the respondent, the less likely that he participated in a wide range of designated activities.

G. Follow up - Job Performance and Progress

Since the key question related to the BOLT project involved the effect that participation had on the job performance and progress of the trainees, a major follow-up data collection program was instituted after a suitable interval.

The design of follow up study involved a return visit to the training site, the work locus, by a member of the BOLT evaluation staff. Interviews were held with the trainees, their first line supervisors, and a representative of upper management (from second level supervisor up). The interviews were structured so that each interview involved filling out an interview rating form in which aspects of BOLT training were rated and commented upon as well. Trainees had little difficulty in responding to the structured interviews, and most first line supervisors needed very little assistance as well. It was found, however, that second level supervisors and other management personnel were not always adequately acquainted with details of the BOLT training or with specific subsequent effects. Their evaluations tended to be global and general, and thus of lesser significance in evaluation terms. Nevertheless, their comments were often representative of positive attitude changes, and the occasion to discuss the BOLT programs gave them an additional opportunity to consider the program's contribution to job up-grading of the trainees.

The basic qualitative score for follow-up criterion data was arrived at according to a variable formula. The range of scores was from 0-50. If, for a particular trainee, a rating form * had been filled out with the trainee, his first line, and his second line supervisors, scoring was as follows:

*See Appendices

1. 10 item supervisor rating sheet (3 points each item: 1,2, 5-12)	30 points
2. 10 item trainee rating sheet (1 point each item: 1-10)	10 points
3. 5 item upper level supervisor rating sheet (2 points each item: 3, 4, 5, 6,8)	10 points
	50 points

In cases where either trainee ratings or upperlevel supervisor ratings were not obtained, the 10 items of the first line supervisor rating forms were scored with a 5 point value, giving this rating form alone a 0-50 point range. The scorable items were predesignated from among the items on this rating sheet.

In addition to the elements specified and rated, all interviewers were encouraged to discuss the program and its impact in broader terms. Other significant correlations are between age and residence (.46).

1. Changes in Job Situation, Job Up-grading, Retention, Promotion, etc.

The inclusion of retention as a measure of job up-grading is not a common practice. In the case of the trainees involved in the BOLT program, however, it is not only justificable but appropriate.

Eight BOLT programs were conducted with employees of the New York City Housing Authority. Ten programs were specifically designed to assist trainees in taking a Civil Service Examination; 8 for Housing Authority Caretakers, 2 for Department of Hospitals, Housekeepers.

At the time of training, these trainees were provisional employees.

Their continued tenure on the job depended on their passing of the appropriate Civil Service Examination.

The New York City Department of Personnel does not compile statistics of differential rate of failure on these examinations by ethnic groups. In personal communication, however, officials of this department have disclosed that the failure rate among applicants with Spanish surnames is very high. In one unofficial survey, it was estimated at 88%.

The problem follows a well established routine. Men are hired as housekeeper aides, or caretaker aides on a provisional basis. They do the work efficiently enough to be retained in this capacity.

By law, however, when an examination is scheduled, they are required either enter to qualify for permanent employee status by passing the Civil Service Examination or be terminated. For Puerto Rican New Yorkers, their difficulties with the English language make this examination an imposssing barrier.

The table attached gives the names, scores, civil service list and BOLTgroup numbers of those who passed the Housing Caretakers examination. The official statistics at the bottom of the table indicate, that of the BOLT trainees 27 passed of 67 in the programs, and, incidentally, of 56 who actually took the examination. This contrats with a general rate of 1,500 passing the examination out of 2,400 applications. The 48.2% passing rate of BOLT trainees is apparantly less than the 62.5% general rate of success on the examination. Yet when it is contrasted with the unofficial success rate of 12% of Spanish-speaking applicants who receive no special training, it represents an apparent achievement of considerable dimension.

BOLT Students - Housing Caretakers

PASSED

NAME	SCORE	CIVIL SERVICE LIST #	BOLT GROUP #
Heriberto González	98	867	BOLT V
Orlando Mendoza	98.700	691	" V
Carlos Valentín	91	1170	" V
Diosdado Rivera	88	1244	" VII
Alfredo Correa	80	1445	" IX
Victor Feliciano	98	871	" IX
Jorge Quiñones	84	1335	" IX
Felipe Torres	84	1360	" IX
José Martínez	103.700	194	" IX
Delfín Ramírez	98.400	752	" VIII
Antonio Coriano	86	1296	" VIII
Ramón R. Pérez	98.700	688	" VIII
Ramón Rivera	90	1217	" X
Ramon Rivera (St. Nicholas)	72	1576	" X
Miguel Alvez	80	1463	" XI
Henry Caro	88	1248	" XIII
Luis A. Colón	76	1539	" XIII
Israel Cruz	78	1490	" XI
Antonio Ferreira	98.400	700	" XI
Gregorio López	92	1111	" XIII
Victor Martínez	81	1428	" XI
Víctor Méndez	76	1521	" XI
Angel Rivera	80	1459	" XI
Rosario Reyes	84	1355	" XIII
Justino Santana	90	1195	" XIII
Manuel Suárez	84	1385	" XI
José Rivera	80	1471	" XI

Took Exam - 2400

Passed - 1500

In BOLT Course - 67

BOLT Students - Passed - 27

2. CORRELATION OF LANGUAGE CHANGE SCORES WITH SUPERVISORS' RATINGS

Do changes in language proficiency relate to improvement in job performance as rated by supervisors? Our data fail to demonstrate such a relationship. Correlations between language change scores and supervisor ratings are as follows:

CHANGE IN	CORRELATION WITH SUPERVISOR'S RATINGS
Interview	.07
Aural	.12
Structure	.11
Job Vocabulary	.04

None of these low correlations are significant, so one cannot assert a relationship between language improvement and suvervisory ratings on the basis of the data. The evidence of a relationship between language improvement and improved work effectiveness derives instead from the content of the trainees, supervisors, and upper level supervisors' comments in evaluating the program as well as from retention and job up-grading data presented in Summary of Intensive Follow-up Survey of 38 BOLT Graduates.

The correlations reported above are based on a small sample (N=38) of four training groups which were selected for reasons of feasibility rather than randomly selected. With such a small sample, highly biased or unreliable ratings by a single supervisor would have undue weight.

Evidence of such bias or unrealiability can be clearly adduced from additional correlations found between supervisor's ratings and other variables.

VARIABLE	CORRELATION WITH SUPERVISOR'S RATINGS	SIGNIFICANCE LEVEL
Raven Matrices	.29	2.104**
Attitude to Authority	- .62	- 2.568**

**significant at the .01 level

Supervisor's ratings correlate in positive fashion with Raven Matrices scores, which measure not only intelligence but an acculturation factor. They correlate in negative fashion with attitude to authority scores, a finding that suggests that passive acceptance of authority may be related to higher ratings of improvement.

Conclusive discussion of the relationship between language improvement and supervisors' ratings must await additional rating data.

3. EVALUATIONS OF BOLT PROGRAMS BY FIRST LEVEL SUPERVISORS

Given the disparate nature of the training sites, curricula and purposes, the evaluations by first line supervisors showed a high degree of consistency. The over all evaluation of the program was highly positive in the more structured work settings, particularly in industrial, medical and other civil service settings. The programs conducted with neighborhood groups, and in an other setting where the trainee's orientation to the program was less favorable (because of a less direct relationship to jobs and job up-grading) were evaluated in less positive fashion. Supervisors of the New York City Housing Authority gave positive over-all evaluations, although in one case, the supervisor mentioned extensive trainee resistance to the program because trainees were not selected for the program, but ordered to attend, and had to give up their lunch hour and coffee breaks.

4. SUMMARY OF INTENSIVE FOLLOW-UP SURVEY OF 38 BOLT GRADUATES

To determine what effect a fifty hour BOLT course has on a worker's performance, upgrading, English-speaking ability and morale, effective at least 6 months after graduation, an intensive follow-up study of 38 graduates of four different BOLT courses was conducted: BOLT II for eight hospital housekeepers at Welfare Island; BOLT IV for eleven young adults in the South Bronx Concentrated Employment Program Office Skills; BOLT V for ten housing caretakers at the Eastchester Gardens Housing Authority; BOLT XIV for nine community action workers at Massive Economic Neighborhood Development (MEND). One training site, Montefiore Hospital, conducted a completely independent evaluation, highly favorable. (See APPENDIX)

The four BOLT groups mentioned above were selected for study because they seemed representative of the variety of occupations which have received BOLT training. Individual interviews were held with the graduates and with their supervisors.* The data thus collected was evaluated and three main conclusions emerged.

*Several graduates were not interviewed because they were absent from work or had moved to new job sites ; one supervisor, Mr. Herschfield of Eastchester Gardens Housing Authority, was unable to particularize his comments because he lacked knowledge of the graduates of BOLT V Caretakers supposedly under his supervision.

(1) 71% of the graduates moved up in various ways: All eight housekeepers in BOLT II passed Civil Service Exams and became provisional housekeeper supervisors; eight of the eleven unemployed trainees in BOLT IV Neighborhood Youth Corps completed a skills training program; five of the ten housing caretakers in BOLT V passed Civil Service Exams; six of the nine community action workers in BOLT XIV participated in a special English-sociology program at Columbia University. (See note 1)

(2) All of the supervisors except one (where BOLT was not voluntary and passed the worker's lunch hour) felt that the BOLT course had helped their workers communicate in English while at the same time had increased their job effectiveness, morale, promotability and relationship with peers and management. (See note 2)

(3) Most of the graduates felt that in addition to helping them improve their English, the BOLT course provided a positive learning experience. (See note 3)

NOTE 1.1 BOLT II - Welfare Island - Hospital Housekeepers

A. Avilés* ***
V. De Santiago*
F. Díaz*

*passed Civil Service Exam and became provisional housekeeper supervisors;

NOTE 1.1 (Cont.)

D. Figueroa* ** ***
I. González*
H. Lagares*
A. Ortiz*
J. Ramos*

**singled out as being especially ambitious and capable of higher positions;

***are continuing their schooling;

NOTE 1.2 BOLT IV - South Bronx Concentrated Employment Program - Adolescents-Office Skills

I. Alicea
J. Amadeo
J. Cosme*
D. Crespo*
C. Figueroa*
P. Hernández
I. Iraola*
C. Marías*
B. Meléndez * **
O. Rodríguez* **
L. Vázquez*

*completed a skills training program at the Neighborhood Youth Corps.

**enrolled in and completed a second skills training program as key punch operators and are presently awaiting job placement.

NOTE 1.3 BOLT V - Eastchester Gardens Housing Authority - Housing Caretakers

H. González*
J. Medina
J. Mendoza*
A. Pagán
J. Pagán
A. Rosario* **
C. Valentín*
J. Valentín*
M. Vázquez
J. Vega

*passed Civil Service Exam

**highly recommended by his supervisors; received a promotion to a position requiring fluency in spoken and written English

NOTE 1.4 BOLT XIV - Massive Economic Neighborhood Development - Community Action Workers

F. Cedeño*
L. Colón*
H. Del Valle
I. González*
C. Lanausse
R. Morales*
A. Ortiz*
F. Rivera
S. Serrano*

*enrolled in a special English-sociology program at Columbia University meeting three times a week for a full semester;

NOTE 2 A sampling of comments by supervisors, senior workers, and training directors.

BOLT II

"Mr. Arcadio Avilés H.A. at Central Nurses Residence attended the English Classes given by your department during the past winter and I am very happy to report to you that his English appears to be greatly improved."

a memo from V.C. Barry, Director, Central Nurses Residence City of New York

"This is to inform you that the English course conducted at Goldwater Memorial Hospital by the Puerto Rican Forum, Inc. was of great help. It served to increase the morale of the employees whose grasp of English and added to their comprehension and communication skills. This course has been a benefit both to the employees and the hospital."

a letter from R. Alvarez, Sr. Housekeeper, Goldwater Memorial Hospital

"The group (BOLT II) works better and has more job responsibility and job satisfaction."

from an interview with Mr. Riera, Senior Housekeeper, Welfare Island

"...As you can see, the feeling is that the program was helpful to those who participated in it. Again, many thanks for your assistance in making the English classes available to our staff."

from a letter of Leon Adler, Chief of Training, Department of Hospitals, New York City

BOLT IV

"Their English is still very poor but I think they have a better attitude toward achieving.... Mr. Rodríguez had perfect attendance during his key punch training, received high grades and will make a good employee."

from an interview with Mr. Oscar García Supervisor, South Bronx Concentrated Employment Program

BOLT V

"At first the men were very enthusiatic about the program and spoke about it among themselves and did do their assigned homework. Later during the course enthusiam died out. I don't know why and I don't know enough about the men to say anything about them individually."

from an interview with Mr. Herschfield, Supervisor, Eastchester Gardens Housing Authority, where BOLT took the men's lunch hour and was not voluntary.

BOLT XIV

"The training gave them the ambition to continue their education and to search for better prospects for the future."

from an interview with Mr. Quiñones, Director of Training, Massive Economic Neighborhood Development

NOTE 3 A sampling of comments from the BOLT graduates:

BOLT II

"I am doing very well in Metropolitan Hospital Center. In this job I am in charge of the linen room, basement, garbage detail and soiled linen room. I have come across some assignments that I had to use all my ability and training I have taken to do my best. I feel the course taken with Miss Zentella, Director of BOLT Puerto Rican Forum, Inc. was of tremendous help to me in my present assignment. The classes I am taking at New York Community College in Brooklyn, New York. - I am doing very well."

A letter from V. De Santiago, formerly a housekeeper at Welfare Island

"I want to take this opportunity to thank and compliment the City of New York and the Puerto Rican Forum and staff, for the wonderful English course given to me. Having better knowledge of the English language made it easy for me to go for a civil service test for housekeeper position. Today I have more peace of mind and a better sence of humor, I have improved greatly on my daily assignments because now I communicate better."

A letter from I. Ramos, Building Supervisor, Goldwater Memorial Hospital

"I take this opportunity to express my gratitude to the Puerto Rican Forum for the English course that I attended at Goldwater Memorial Hospital. I really appreciate it because with they help, now I can write, read and speak better English."

A letter from H. Lagares, Supervisor,
Goldwater Memorial Hospital

BOLT V

"I can correct my own mistakes and I can speak to most of the people in this building. I'm going to take the fireman exam and try to get a better paying job than I have now."

From an interview with Heriberto González,
Caretaker, Eastchester Gardens Housing
Authority

"It's easier for me now to ask for tools and materials and I probably have a better chance for a promotion in the future but I'm not going to look for a better job because I don't want to press my luck."

From an interview with José Mendoza, Caretaker,
Eastchester Gardens Housing Authority

H. DISCUSSION 1. Three Main Points

Other than the positive result that language improvement does in fact occur, and that it contributes to job retention and up-grading, what other inferences can be made from the data? The data include not only the two computer analyses but also the range of evaluation data compiled: ratings, comments, institutional evaluations, and job retention and up-grading information.

The following points began to emerge:

a. The assumption that older men resist training is unwarranted for due to concern for the concept of personal dignity, significant increases of language competency occur with students in their forties and even fifties.

b. The creation of course content built around the specific job needs of the group is an important factor in the effectiveness of the program's training procedure.

c. People with diverse backgrounds, varying ages and different levels of competence in language use show significant improvement within the relatively short training period.

It would appear that the BOLT trainees began with very limited language usage and have made significant improvement. This is true for all of the participants; however, it is most evident among the older students: early forties (40-43) and late forties (47-49). The BOLT demonstration project has yielded apparent evidence concerning education of adults with regard to language training. The statistical results indicate that effective compensation was made for variances of: age, background, and non-native language adequacy; while we are aware of variation in native language adequacy, no measures of this variable were made.

Evaluation of adult training programs, particularly those involving language, yield widespread evidence of resistance to the role of student. The BOLT program, by bringing the training to the student, making it clearly relevant to his job situation, and communicating an attitude of respect for the trainee's dignity, has not encountered such possible resistance. Both student and supervisor evaluations of their training experience stress these positive factors. The consanguinity of the trainers is also cited as a significant factor both by trainees and by the evaluators.

In summary, it has been demonstrated that the method is effective, and that part of this effectiveness is due to a training context of consanguinity and concern for the trainee's dignity. A key factor is specially created, job relevant training material and methodology well based on principles of applied linguistics.

APPENDIX

Tables I and II

Schedule of Courses

Phase I

Ethnic Background

Background Information on Student (Occupational)

Informe Biográfico (Biographical Information)

Oral Interview

Adapted TAT Pictures - Oral Interview

Oral Interview Rating Sheet

Job-Related Vocabulary Test

Curriculum Guide Outline

Training Session Breakdown

Upper Level Supervisors Sheet

Supervisor Rating Sheet

Student Ratings

Montefiore Evaluation

Table I

CHANGES IN SCORES PRE AND POST TRAINING - BASED ON XIII GROUPS

TOTALS

Examination*	No. of Cases	No. of Groups	Scale	PRE Training	POST Training	Total Improvement for all Subjects	Average Improvement Per Subject	Score (Significant at .001 Level)
Oral Interview	71	11	0-5	77.0	100.4	23.4	.3295	4.37
Aural Comprehension	100	12	0-100	4211	4995	784	7.84	21.7
Structure	101	12	0-100	3940	4676	736	7.2871	7.6
Job Vocabulary	96	11	0-3	122.5	186.10	63.60	.6625	7.9

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*See Table II for description of exams.

PUERTO RICAN FORUM, INC.
BASIC OCCUPATIONAL LANGUAGE TRAINING

Table II

PUERTO RICAN FORUM, INC.

BASIC OCCUPATIONAL LANGUAGE TRAINING

Description of Language Tests

1. Oral Interview - Scale 0-5

A 15 minute conversation with five standard questions to test various tenses (present, present perfect, past, future and conditional) followed by responses to 4 specially prepared drawings in the style of the Thematic Apperception Test of Dr. Murray of Harvard University. The post training inverview uses a fifth picture. (Also attached)

The first picture, for example, shows an adolescent standing near a table with one hand on a thick book, which resembles a dictionary or text book. The subject is asked to tell a story describing what is going on, what led up to it, how the person feels and what the outcome will be. Ratings of the responses have been made by our research psychologist and/or his associates.

The English rating (on a 0, 0+, 1, 1+, 2-5) scale 1/ is of general language use and fluency including factors of word choice, mostly of forms, pronunciation, enunciation, use of appropriate tenses, etc. The standardized interviews were all tape recorded since their content involved responses to stimuli related to the motivational variables described above.

1/ The tape recordings were rated separately for language use in a conversational situation, following Foreign Service Institute criteria, 0-5 scale.

2. Aural Comprehension

Designed by:

Charles C. Fries, Director
Robert Lado, Assistant Director
English Language Institute
University of Michigan

Copyright 1956

Scale: 0-100

Format: Tape recorded sentences demanding comprehension and retention relating to pictures and multiple choice sentences.

3. Structure

Designed by:

Charles C. Fries, Director
Robert Lado, Assistant Director
English Language Institute
University of Michigan

Copyright 1946

Scale: 0-100

Format: The first 92 questions are multiple choice and the last 58 questions are designed to determine the abilities of the respondants with regard to the use of grammatical structure.

4. Job Vocabulary

Scale: 0-3

Format: Specially devised vocabulary tests with a sample of ten words relating to the specific job situation of increasing difficulty. Since this test is presented visually and (if needed) aurally, the score earned by the trainee is not merely a yes or no rating, but indication of working mastery of the specific vocabulary.

PUERTO RICAN FORUM, INC.
BASIC OCCUPATIONAL LANGUAGE TRAINING PROGRAM
SCHEDULE OF COURSES
PHASE I

Location	No. Of Trainees	Graduates	Hours	Time of Employer	Of Worker	Star/End Date	Remarks
I. Eden Garage Bronx	6	-	6- 8 PM	0	2	1/9-2/29	Auto mechanics: Cancelled due to erratic union attendance strike
II. Welfare Island	8	8	12:30-2:30	1	1	1/15-2/19	Civil Service Housekeeper Examination Candidates
III. Jacobi Hospital Bronx	6	6	3 - 5 PM	1	1	1/15-2/19	" " "
IV. South Bronx Concentrated Employment Program (SBCEP)	11	11	9:30-11:30 AM.	2	-	1/29-3/1	Unemployed-Taking Clerical Training
V. Housing Authority Eastchester Garden-Bronx	10	9	12 - 2 PM	1	1	2/26-4/1	Caretakers Civil Service Examination Preparation
VI. Housing Authority Melrose - Bronx	10	10	9:30-11:30 AM.	1	1	3/4-4/8	" " "

Location	No. Of Trainees	Graduates	Hours	Time of Employer	Of Worker	Start/End Date	Remarks
VII. Bushwick Neighborhood Coordinating Council (BNCC) Brooklyn	10	8	3-5	2 hrs. (Welfare)	-	3/4-4/8	Office Skills Welfare Recipient Prep Program
VIII. Housing Authority Bronx River -BX	10	10	9:30-11:30 AM.	2	1	4/8-5/10	Caretakers Civil Service Examination
IX. Housing Authority Wagner - Manhattan	10	10	12:30-2:30	1	1	4/8-5/10	Caretakers Civil Services Examination
X. Housing Authority III Wagner-Manhattan	10	10	3:30-5:30 PM.	2	-	4/8-5/10	Caretakers Civil Service Examination
XI. Housing Authority Smith House	20 10	10	9:30-11:30 AM	1	1	5/13-6/20	Caretakers Civil Service Examination

+	Location	No. Of Trainees	Graduates	Hours	Time Employer	Of Worker	Start/End Date	Remarks
XII.	Housing Authority Lower Manhattan	10	10	12:30-2:30	1	1	5/13-6/10	Caretakers Service Examination
XIII.	Housing Authority Brooklyn	10	8	3:30-5:30	1	1	5/13-6/10	Caretakers Service Examination
XIV.	M E N D (Massive Economic Neighborhood Development)	9	9	11:30-1:30	2	-	6/24-7/26	8 Women, 1 man representing store fronts learning English for Community action
XV.	Veteran's Administration Hospital 23rd. St.	8	8	2:00-4:00	2	-	6/24-7/26	Dietary Service

	Location	No. Of Trainees	Graduates	Hours	Time Employer	Of Worker	Start/End Date	Remarks
XVI.	Lenox Hill Hospital 100 East 77 Street New York, N. Y.	7	5	4:30-6:30	2	-	6/24-7/26	Building Services
XVIII.	Montefiore Hospital	11	-	3:00-5:00 PM.	1	1	10/16-12/31	Nursing Attendants 8
XIX.	M E N D (Massive Economic Neighborhood Development) East Harlem	8	-	12:00-2:00 PM.	2	-	11/4-12/31	Community Action Workers - [illegible]
XX.	St. Vincent's Hospital	10	7	10:00-12:00 PM.	2	-	1/13-4/18	Housekeepers
XXI.	First National City Bank	16	12	1:00-3:00 PM.	1	1	1/14-4/18	Proof Machine Operators

PUERTO RICAN FORUM, INC.
BASIC OCCUPATIONAL LANGUAGE TRAINING
PHASE I

	BOLT COURSE	PRE-TESTED	SELECTED	DROP-OUTS	GRADUATES
I	Eden Garage Mechanics (Free Workers Time)	6	CANCELLED		
II	Welfare Island Hospital Housekeepers	8	8	-	8
III	Jacobi Hospital Hospital Housekeepers	6	5	-	5
IV	South Bronx Office Skills (CEP Unemployed)	15	11	-	11
V	Eastchester Project Caretakers	11	11	-	11
VI	Bushwick Office Skills (Welfare Unemployed)	12	8	-	8
VII	Melrose Project Caretakers	12	11	1	10
VIII	Bronx River Project Caretakers	15	10	-	10
IX	Foster-Wagner Project Caretakers	27	10	-	10
X	Wagner Project Caretakers		10	-	10

PHASE I

	BOLT COURSE	PRE-TESTED	SELECTED	DROP-OUTS	GRADUATES
XI	Smith Project Caretakers		10	-	10
XII	Smith Project Caretakers		10	-	10
XIII	Smith Project Caretakers (with XI and XII)	44	10	2	8
XIV	MEND (Community Action Workers)	12	9	-	9
XV	Veterans Hospital Food Services	10	9	1	8
XVI	Lenox Hospital Building and Laundry Personnel	9	5	-	5
XVII	Headstart Mothers Consumer English	12	12	7	5
XVIII	Montefiore Hospital Hospital Housekeepers	21	11	1	10
XIX	MEND (Community Action Workers)	11	10	3	7
XX	St. Vincent's Hospital Hospital Housekeepers	23	11	4	7
XXI	First National City Bank Check Processors	23	17	5	12
	Columbia University Buildings and Grounds Personnel	11	(Strike caused cancellation of proposed course)		

PHASE I

BOLT COURSE	PRE-TESTED	SELECTED	DROP-OUTS	GRADUATES
Lincoln Hospital Hospital Housekeepers	25	(Hospital Personnel did not seek out workers in similar job areas, time schedules on levels of liability. No homogeneous group of ten could be made).		
Columbia University Comptrollers Office	17	(The Comptroller reneged on providing jobtime for the course.)		
First National City Bank II Check Processors	13	(Bank is considering requesting our training services for its own in-house language training.)		
TOTALS	343	198	24	174

PUERTO RICAN FORUM, INC.
BASIC OCCUPATIONAL LANGUAGE TRAINING
(BOLT)
ETHNIC BACKGROUND OF PARTICIPANTS
PHASE I

	Puerto Rico	Dom. Republic	Columbia	Cuba	Ecuador	H
BOLT II Welfare Island	7	1				
BOLT III Jacobi Hospital	5					
BOLT IV South Bronx Concentrated employment Program	10		1			
BOLT V Housing Authority Eastchester Gardens Bronx	11					
BOLT Bushwick Neighborhood Coordinating Council	7			1		
BOLT VII Melrose, Bronx	10					
BOLT VIII Bronx River	10					
BOLT IX Wagner	10					
BOLT X Wagner II	10					
BOLT XI Smith Houses	10					
BOLT XII Smith Projects Missing 4	6					

PUERTO RICAN FORUM, INC.
BASIC OCCUPATIONAL LANGUAGE TRAINING
(BOLT)
ETHNIC BACKGROUND OF PARTICIPANTS
PHASE I

	Puerto Rico	Dom. Republic	Columbia	Cuba	Ecuador	Honduras
Welfare Island	7	1				
I Jacobi Hospital	5					
South Bronx Con- ed employment	10		1			
Housing Authority ster Gardens	11					
shwick Neighborhood ating Council	7			1		
I Melrose, Bronx	10					
II Bronx River	10					
Wagner	10					
Wagner II	10					
Smith Houses	10					
I Smith Projects Missing 4	6					

PHASE I (Cont.)

	Puerto Rico	Dom. Republic	Colombia	Cuba	Ecuador
BOLT XIII Smith Houses	8				
BOLT XIV MEND	9				
BOLT XV Veterans Administration	8				
BOLT XVI Lenox Hill Hospital	1	2	1		1
BOLT XVII Headstart	1			4	
BOLT XVIII Montefiore Hospital	8				1
BOLT XIX MEND	6		1		
BOLT XX St. Vincent's Hospital	6			1	
BOLT XXI First National City Bank	1	1	1	9	
	144	4	4	15	2

Total = 170
Missing = 4
Final Total = 174

a. Housing Projects involved - 44
b. Caretakers 79

	Puerto Rico	Dom. Republic	Colombia	Cuba	Ecuador	Honduras
	8					
	9					
ration	8					
tal	1	2	1		1	
	1			4		
pital	8				1	1
	6		1			
pital	6			1		
	1	1	1	9		
	144	4	4	15	2	1

involved - 44
79

BACKGROUND INFORMATION ON STUDENTS

Name ______________________________ Date of Birth ______________________________

Place of Birth ____

EDUCATIONAL BACKGROUND

Elementary ______________________________ High School ______________________________

Other ____

OCCUPATIONAL EXPERIENCE

(List only positions held in New York City)

1. Present Company ______________________ Nature of Work ______________________

   Date: From ______________________ To ______________________

   Salary ____

2. Company ______________________ Nature of Work ______________________

   Date: From ______________________ To ______________________

   Salary ____

   Reason for leaving: ______________________________________

3. Company ______________________ Nature of Work ______________________

   Date: From ______________________ To ______________________

   Salary ____

   Reason for leaving: ______________________________________

4. Company ______________________ Nature of Work ______________________

   Date: From ______________________ To ______________________

   Salary ____

   Reason for leaving: ______________________________________

PUERTO RICAN FORUM, INC.
Basic Occupational Language Training

Informe Biográfico

____
Lugar de Trabajo

Haga el favor de llenar esta planilla con toda la información necesaria en español. Toda la información se considerará personal.

Nombre ______________________________

Dirección ______________________________

____

Edad ______________________________

Lugar de nacimiento ______________________________

Tiempo en Nueva York ______________________________

Años de escuela ______________________________

Lugar de la escuela ______________________________

¿Es usted casado o soltero? ______________________________

Hijos: número ____________ edad (es) ____________________

¿En qué trabaja usted? ______________________________

Departamento ______________________________

Sueldo ______________________________

Horas de trabajo ______________________________

¿Por qué desea usted participar en este programa?

____

Programa BOLT: ____________________

Profesor: ____________________

Ausencias: ____________________

PUERTO RICAN FORUM, INC.

BOLT PROJECT

ORAL INTERVIEW

I. Introduction

A. Greetings

1. Buenos días señor, señora, señorita ________
2. Yo soy ________________________
3. Siéntese por favor
4. Como usted sabrá pensamos comenzar un un programa de inglés y me gustaría conversar con usted por un ratito en inglés, ¿está bien?

II. Procedure

A. Questions for Initial Interview (Pre-Course)

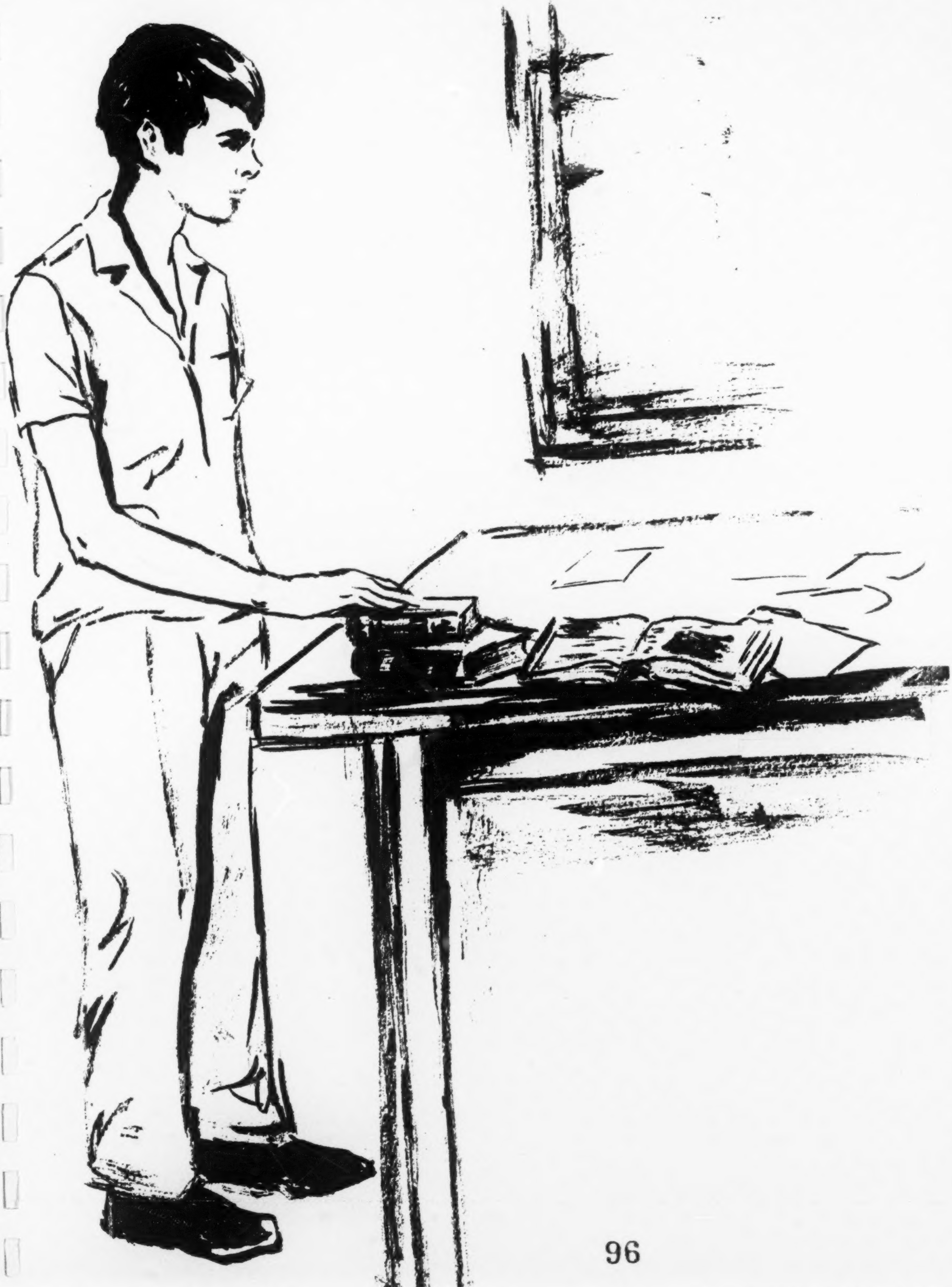
Put tape recorder on

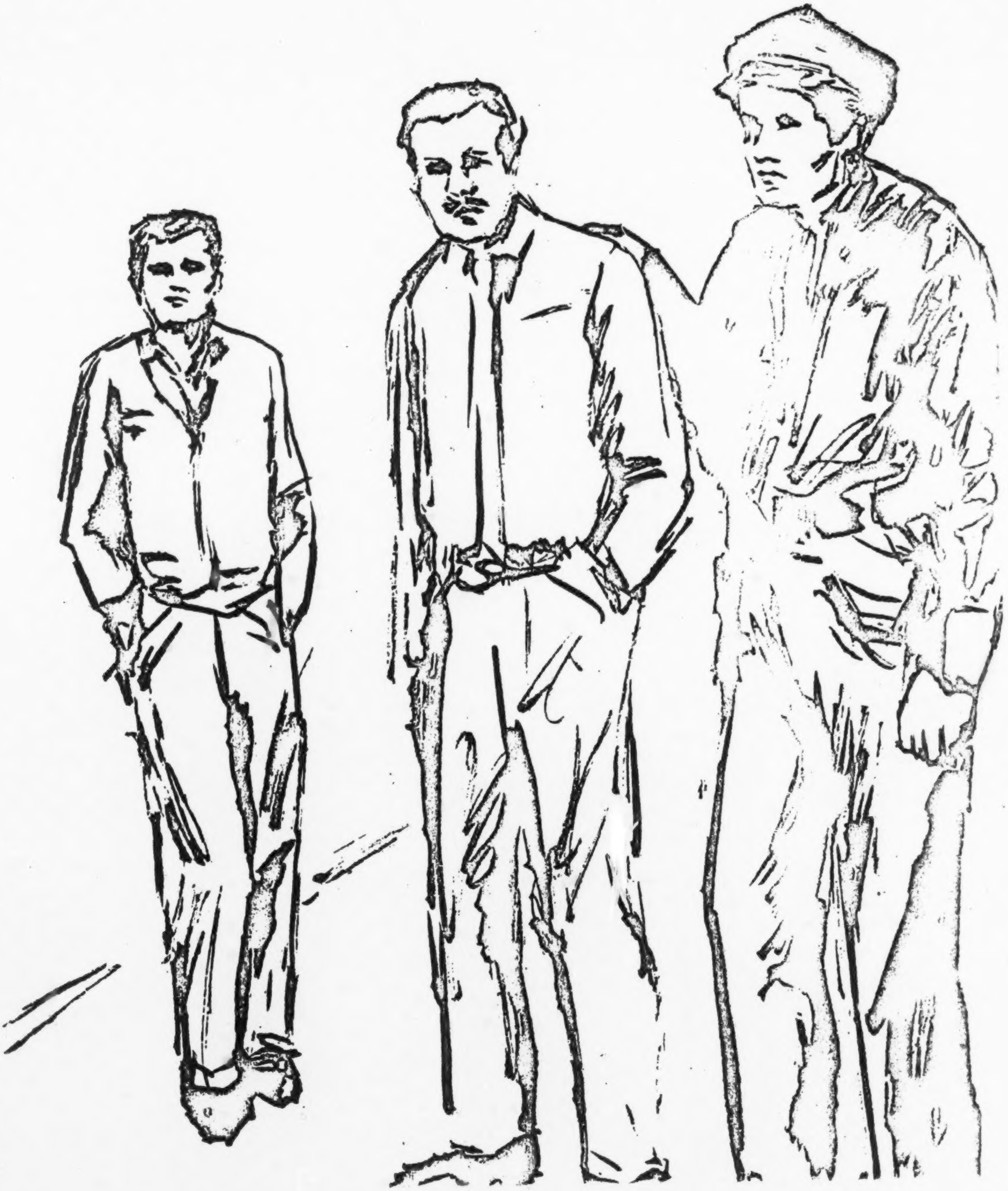
	1. What's your name?
	2. How old are you?
Present Tense	3. Where do you come from?
Present Perfect	4. How long have you lived in New York?
Past Tense	5. What sorts of things did you like to do when you were a child?
Future Tense	6. What will you do when you take your vacation?
Conditional	7. If you had Rockefeller's money, where would you must like to go?

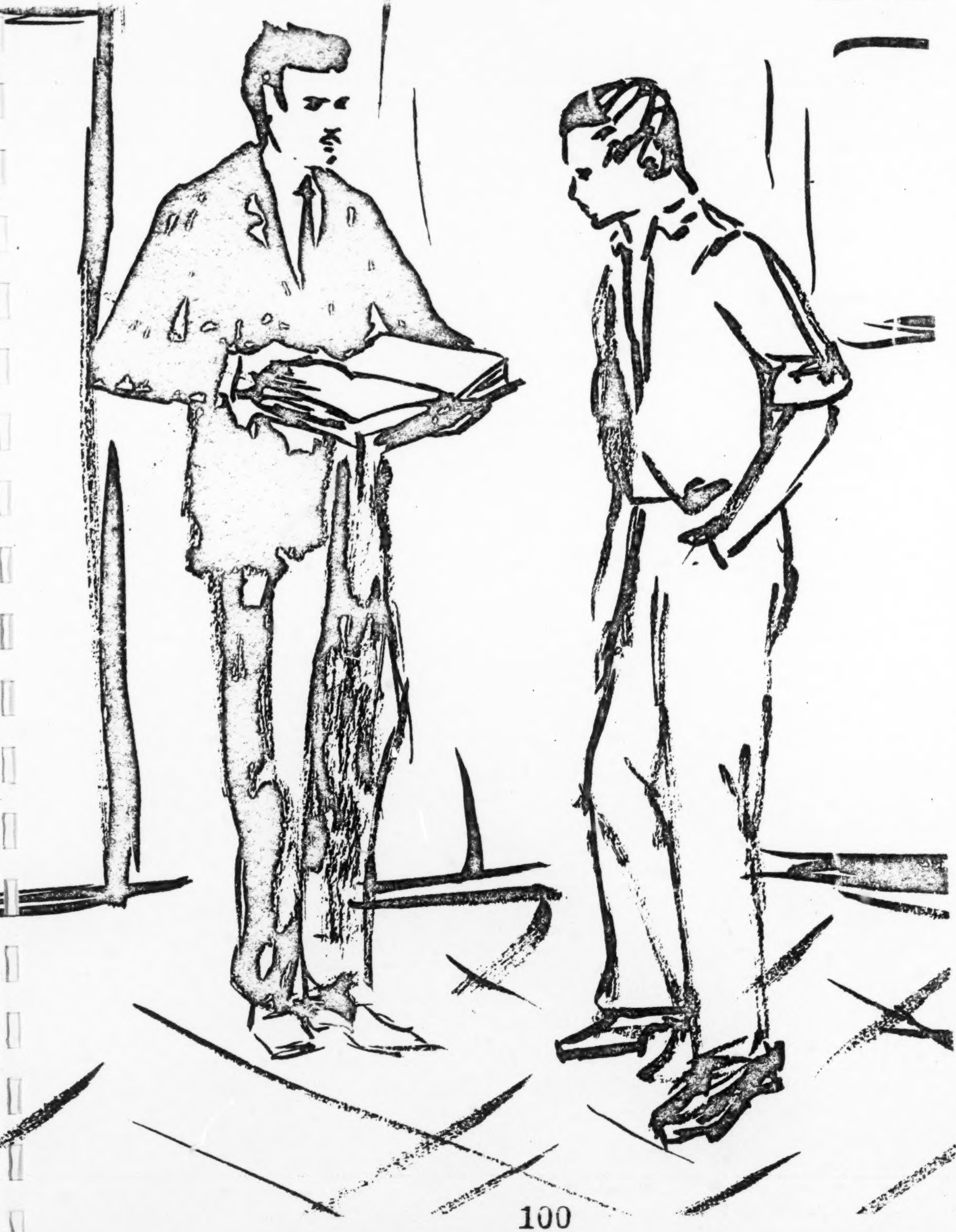
B. Pictures - Now I want you to use your imagination and make up a story for me.

I am going to show you some pictures. I would like you to tell me:

1. What's going on?
2. What is the reason for that? or What caused it to happen?
3. How do the people feel?
4. What will be the result?







Name *Rating Date:

Oral Interview Rating Sheet

Comments Errors noted by
Errors

Verb Tenses	1	2	3	4	5
Present					
Pres. Perfect					
Past					
Future					
Conditional					
Word Agreement					
Subject-Verb					
Order					
Adj - noun					
Prepositions					
Nouns					
Nouns: Mass					
Count					
Possessives					
Demonstratives					
Auxiliaries -					
Pronouns					
idiomatic expressions					

Verb Tenses	1	2	3	4	5
Present					
Pres. Perfect					
Past					
Future					
Conditional					
Word Agreement					
Subject-Verb					
Order					
Adj - noun					
Prepositions					
Nouns					
Nouns: Mass					
Count					
Possessives					
Demonstratives					
Auxiliaries -					
Pronouns					
idiomatic expressions					
Comprehension					
idiomatic expressions					
concrete information					
Pronunciation					

b	v	ð	ð	z	ǰ	š	i	æ	ʊ	ǰ	p	#Vs	C
v	f	e	d	s	y	č	I	a	u	č	b	#s	C

OTHER

PUERTO RICAN FORUM, INC.
Basic Occupational Language Training
(BOLT)

OCCUPATION: CARETAKERS

LOCALE: ______
PRE: X
POST: ______

JOB-RELATED VOCABULARY TEST

Worker's Sheet

Instrucciones: (Lea en voz alta)

En este ejercicio usted deberá explicar en inglés el significado de cada una de las siguientes palabras. Lea cada una de las palabras en voz alta cuando el profesor se lo indique.

1. rubbish ______
2. injury ______
3. wringer ______
4. chamois ______
5. alarm box ______
6. corn broom ______
7. hallways ______
8. scrubber ______
9. sprinkler ______
10. weeds ______

PUERTO RICAN FORUM, INC.

Basic Occupational Language Training

Curriculum Guide: Outline

Unit I - Dictionary Drill

Unit II - Lesson 1

1. This and That in negative and affirmative statements and questions.

2. Negative and affirmative questions beginning with is and isn't.

3. Negative and affirmative answers (yes, it is. No, it isn;t).

4. Tag ending: "is it?, isn't it?"

Unit III - Lesson 2

1. Negative and affirmative statements beginning with these and those.

2. Negative and affirmative questions beginning with are and aren't.

3. Interrogative questions beginning with what are .

Unit IV - Lesson 3

1. Personal Pronouns + Be

2. Questions with what + Be

3. Telling Time: What time is it? It is ____. It's ____

Unit V Lesson 4

1. Present Progressive

2. What + (Verb + (pronoun or noun) doing?

Unit VI - Lesson 5

1. Positive and negative statements with Are, there and Is there?
2. How much / many noun + be + there...?
3. Prepositions in, on, at

Unit VII - Lesson 6 (Have and Have to)

1. Have and have to in affirmative statements and questions
2. Short answers using do and does and their negative counterparts

Unit VIII - Lesson 7 (part I) (Simple verb forms in present)

1. Affirmative and negative statements using the simple present form of verbs.

Unit IX - Lesson 7 (Part II)

1. Simple verb forms in present tense
2. do and does

Unit X - Lesson 8 (Possessive Pronouns and Independent Possessive Pronoun)

1. Statements using the possessive adjectives and possessive pronouns.
2. Personal nouns in the genitive case
3. Use of interrogative whose to introduce questions

Unit XI - Lesson 9 (The Future Tense)

1. Affirmative and negative questions using be and going to
2. Affirmative and negative statements and questions using will and won't.

Unit XII - Lesson 10

1. Review of lessons 1 to 9
2. Review of does, do-ing, -s

Unit XIII - Lesson 11 (simple past form of the verb Be)

1. Simple past of the verb to be (was, were)

Unit XIV - Lesson 12 (Simple verb forms other than Be in the past tense)

1. Did, didn't

Unit XV - Lesson 13 (Interrogatives)

1. who, where, when, why
2. Irregular verbs in the past tense

Unit XVI - Lesson 14 (Mass and Count nouns)

1. how much and how many
2. some - any
3. few - little
4. a lot (of) -(less)

Unit XVII - Lesson 15 (The Past Progressive Tense)

1. past form of be + ing form of the verb

Unit XVIII - Lesson 16 (Comparative and Superlative Adjectives)

Unit XIX - Lesson 17 (Modals)

1. can, could, may, might, ought to, should
2. Time expressions

Unit XX - Lesson 18 (Pre and Post nominal modifiers)

Unit XXI - Lesson 19 - The Present Perfect Tense

1. have, has
2. Irregular past principles

Unit XXII - Lesson 20 - Review of all lessons 1 to 19

PUERTO RICAN FORUM, INC.
BASIC OCCUPATIONAL LANGUAGE TRAINING

TRAINING SESSION BREAKDOWN

Unit # __________ Duration: 2 hours

I. Review - 10 minutes

Oral review of previous lesson's work, using wide variety of language exercises.

II. Programmed text - 10 minutes

The entire group continues to work in the book as the instructor goes around to each one. The instructor checks each student's progress in the workbook individually, and records the number of exercises covered. Trainees ask questions on specific points that caused some difficulty.

III. Introduction of new structure - 30 minutes

Visual aids of realistic job situations motivate the trainees and set the objective of the structure lesson, modeled, practiced and reinforced chorally and individually. New vocabulary is gradually introduced.

IV. Language Laboratory I - 10 minutes

Trainees practice the structures and vocabulary previously introduced by repeating and answering specially created tape recordings. The instructor monitors each student individually and stresses correct pronunciation and structures.

V. Coffee Break - lo minutes

Workers are encouraged to relax and practice conversational English with each other and the instructor, also to speak to the instructor privately about any matter.

Training Session Breakdown

VI. Reading - 30 minutes

Specifically work oriented passages which include the vocabulary and structures of the lesson.

VII. Writing - 10 minutes

The workers reinforce their oral command of the structures and vocabulary practiced by visual representation in writing exercises, generally based on the previous reading exercise.

VIII. Language Laboratory II - 10 minutes

Final reinforcement of the lesson's work is a review of the same tape recording used in Language Laboratory I.

BASIC OCCUPATIONAL LANGUAGE TRAINING

BOLT

Second Level
Supervision Sheet

Name of Trainee:

Name of Supervisor:

Date of Training: From ______ to _________

Interval (Training to follow up) _______________

Retrospective Pre-training Ratings

1. How would you rate his job related English language use before training?

   Very poor _____ poor _____ fair ______ good _____ very good _____

2. How would you rate his non-job related English language use before training?

   Very poor _____ poor _____ fair ______ good _____ very good _____

Post - training Ratings

3. How would you rate his job related English language use after training?

   Very poor _____ poor _____ fair ______ good _____ very good _____

4. How would you rate his non-job related English language use after training?

   Very poor _____ poor _____ fair ______ good ______ very good _____

5. Has his job performance been

   (a) The same as before training.
   (b) A little better than before training.
   (c) Much better than before training.

6. Are his relations with his co-workers

   (a) The same
   (b) A little better
   (c) Much better

Second Level Supervision
Sheet (cont.)

7. Based on your creteria for promotion, how promotable is he now?

   (a) Same as before
   (b) A little better
   (c) Much better

8. As a group, what would you say have been the specific changes, if any, that have happened in their job situation.

9. What were the effects, if, any, of the BOLT Training on attitudes, morale, and job satisfaction.

BASIC OCCUPATIONAL LANGUAGE TRAINING

BOLT

Supervisor Rating Sheet

Name of Trainee:

Student Number:

Group Number:

Date of Rating:

Dates of Training: From _______ to ______

Interval (Training to follow-up)________________

Retrospective Pre-training Ratings

1. How would you rate his job-related English language use before training?

   Very poor ___ poor ___ fair ___ good ___ very good ___

2. How would you rate his non-job related English language before training?

   Very poor ___ poor ___ fair ___ good ___ very good ____

Job Criteria

3. What characteristics contribute to a worker's effectiveness?

4. On this job what characteristics contribute to a worker's promotability (capacity to work at a higher level)?

Supervisor Rating Sheet (Cont.)

5. On this job how important is language use in a worker's effectiveness and promotability?

   Very little ___ little ___ some ___ important ___

   very important ___

Post training Rates

6. How would you rate his job-related English language use after training?

   Very poor ___ poor ___ fair ___ good ___ very good ___

7. How would you rate his non-job-related English language use after training?

   Very poor ___ poor ___ fair ___ good ___ very good ___

8. Has his job performance been:

   a. Same as before training
   b. A little better than before training
   c. Much better than before training

9. Are his relations with his co-workers:

   a. The same
   b. A little better
   c. Much better

10. Based on your criteria for promotion, how promotable is he now?

    a. Same as before
    b. A little more promotable
    c. Much more promotable

11. What specific changes, if any, have happened in his job situation?

Supervisor Rating Sheet (Cont.)

12. What were the effects, if any, fo the BOLT Training on attitudes, morale or job satisfaction?

STUDENT RATINGS

Information - follow up sheet

I. BOLT Ratings

	Very Poor	Poor	Fair	Good	Very Good
(1) Evaluation of Purpose (Introduction and Orientation)					
(2) Course Materials (Books, tapes, etc.)					
(3) Physical setting (Bus)					
(4) Equipment and methods earphones, group descussion, homework, etc.					
(5) Instructors skill					
(6) Instructors manners					
(7) Attitude of fellow Students					
(8) Your personal attitude					
(9) Helpfulness of course in language up grading (give examples if possible)					
(10) Helpfulness of course on job effectiveness (give examples if possible)					

II Information:

(1) Effects on job (including job situation changes).

(2) Effects beyond the job (home, family, etc.).

Student Ratings (cont.)

(3) Attitude and self-concept effects.

(4) Job perspectives (promotability, transferability, mobility, job satisfaction and morale)

MONTEFIORE HOSPITAL AND MEDICAL CENTER
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EVALUATION OF THE FIRST BASIC OCCUPATIONAL LANGUAGE TRAINING PROGRAM

Description: On October 16, 1968 the Puerto Rican Forum in cooperation with Montefiore Hospital and Medical Center began a program of training in Basic Occupational Language Skills for ten of the hospital's employees. The language course, built around special medical terms and occupational vocabulary used at the Hospital, was designed to improve the opportunities and efficiency of employees who were handicapped by poor English abilities. The program ran four days a week with two hour classes for a twelve-week period. Classes were held in a mobile language classroom outfitted with the latest in electronic tape and teaching equipment. It was staffed by a licensed instructor under the coordination of the Training Office. The ten students were graduated on January 3, 1969. What follows is an evaluation of their achievements and performance as seen by the Puerto Rican Forum, their instructor, their supervisors, and the training office.

Data: Time- The Puerto Rican Forum invested 1440 man-hours of classroom time without direct cost for the hospital. Approximately half the total man-hours were on a release time basis and half on the employee's own time.

Examination Results-According to the results of extensive testing based upon the University of Michigan profiency norms the students showed significant upward achievement. The students were tested prior to the begining of the program, midway, and at the conclusion of the program. Prior to the program, the test scores for all ten students ranged below the score of 69 which proficiency norms indicates inability to undertake any skills training in an environment where English language is the medium of instruction. The group average was 49.7 out of a possible 100, the latter meaning complete proficiency in the English language at the level needed to succesfully complete a university course of instruction.

By the half way mark in the BOLT Program the class percentile average had risen to 61.3%, a marked increse although not sufficient to be congruent with the goals of the program. One of the students did score a grade of 73 in the mid-term. By the termination of the trining program the class average had risen to 73.0%. a 48% improvement in aural comprehension was accompanied by a grade of 82% for one of the students. It should be noted that the attainment of a proficiency score between 69 and 79 was consired sufficient for undertaking part time academic studies in university. Scores of 80 percentile or above were considered sufficient to compete in any academic endeavor with native born Americans of the same intelligence lev

A further check on the students' progress was provided by scores in language structure and construction of sentences. There was a 28% improvement in test scores on this scale between the beginning and the end of the program.

Instructor's evaluation: Based on formal tests and informal conversation in English with all ten students, the teacher, significantly improved their ability to comprehend to speak English.

Supervisors' evaluation: Since all the comments of the supervisors would be too numerous, what follows are experts from an evaluation meeting held by the Training Office with three of the students' supervisors.

Mr. R. Nameth of the Engineering Department said that there were "certain little things" which indicated progress on the part of his employees to be more interested in the program and therefore in their jobs. He praised the effort and declared that the language barrier had prevented many of his employees from moving ahead: "I have had to turn down a man for an auto mechanic's job because he couldn't speak English. He was excellent though, according to his references." Mr. Nemath also expressed a desire to see "....Spanish speaking employees cycleds through a permanent language laboratory."

Mr. R. Luciano of General Services felt that his employees "have gained definately more comprehension confidence, and vocabulary. Vazquez (one of the BOLT students) is now interested in moving up." He stated that of the other Spanish speaking employees in his department some 50 had expressed an interest and could use such a program. Mr. Luciano said that he could supply ten employees at any given time for the program. He added that "...they dressed a lot better because they were proud of going to school. As a matter of fact their attendance also improved."

Mr. I. Stern, laundry executive said that "the BOLT program amkes it easier for us to communicate with the employees. I would like to see the people who didn't participate in the first one participate in a second."

Student Evaluation: In interviews conducted approximately one month after the conclusion of the program, theTraining Office found all the students very enthusiastic about the BOLT Program and expressing the desires to attend more training programs to increase their opportunities for advancement in the health and allied fields.

Luz Verdejo, one of the BOLT graduates who worked in the laundry remarked, "....the program helped me understand instruction, especially at work." "I would like more English classes."she added.
" I loved the BOLT program," Amparo Calderon, another laundry worker said. "Everyone was so nice now people can understand what I am saying to them." She decared that she had applied for the High School equivalency program run by the Training Office. (Due to lack of space, she is scheduled to enter the summer class.)

When we talk to Marcella Aguirre, also a laundry worker, she was enthusiastic discussing the change that had taken in her life since she began the BOLT program. " Very interesting for spanish speaking people" she said of the program adding that communication in the lingue franca was very important as far as attaining a good job with opportunities for advancement. "I am going to school now to improve my typing," she announced as we left. Miss Aguirre's main hindrance was in typing English with any speed although her typing in Spanish was of unusual quality. The Training Office has arranged for her to be considered by the employment office for a job as a clerk typist once she has improved her typing speed.

Jorge Price, a BOLT student, now gives orders in rapid English in the storeroom where he works. Mr. Price achieved considerable facility in the English language upon graduation from the BOLT program and was rated as being able to begin an academic course of study based on his English abilities.When asked for his opinion on the program he said,"It was very good." "If we had more time we would have done even better." He added that previously "... I had been afraid to speak, now I try and am able to speak far better than I ever could have without BOLT." Mr. Price said that "Montefiore has done a lot for me by helping me improve my English."

Training Office Evaluation: It is the conclusion of the Training Office staff that the BOLT program was a highly successful activity which resulted in significant benefits for the Hospital and the individual students. These benefits may be summarized followe:

1. The employees have improved their abilities to perform their jobs. In the judgement of the students the supervisors and the Training Office all of the students are better able to perform their jobs than they were before the program. The test aceres substanciate this judgment.

2. The employees have become more capable of functioning as full members of an English-speaking sociaty. The general improvement of the students ability to speak and read the English language has made them more able to deal with the predominantly English-speaking sociaty. This can be seen not only in the test scores but also in their more self-confident attitude.

3. The employees' morals and general attitude toward the Hospital and their jobs has been improved. While there has been no specific measurement of pre- and post-program attitude change, the records of interviewe with the students seem to indicate a general improvement in morals and job attitude. This also seems to be the general observation of the supervisors. Each of the students has at one time or another gone out of the way to thank the staff of the Training Program for the opportunity to participate in the program.

4. The employees have been motivated by the program to to seak further training and education. Of the 10 students in the BOLT program, 8 have asked the staff of the Training Office about other training programs both within and outside of the Hospital. Six of the students applied for the High School Equivalency program. One of the most frequent comments made by the students before and after the program was that their success in the language program had convinced then that they could learn now things and there was little to fear from education.

5. The program improved the morals and attitude of employees other than those enrolled in the program. The simple existance of the program stimulated several score of inquirias to the Training Office about training activities and created a sense of interest and exitament among many Spanish-speaking employees. Several of the supervisors remarked that the fact that some employees were enrolled in the program encouraged others to develop a more favorable attitude toward the Hospital and the hope that they too might benefit from future programs.

Training Office Evaluation (Continued):

No specific figures can be determined, of course, but we believe it fair to assume that the existance of the program lowered turnovar among low-level Spanish-speaking employees.

Edward W. Knappman
Training Coordinator